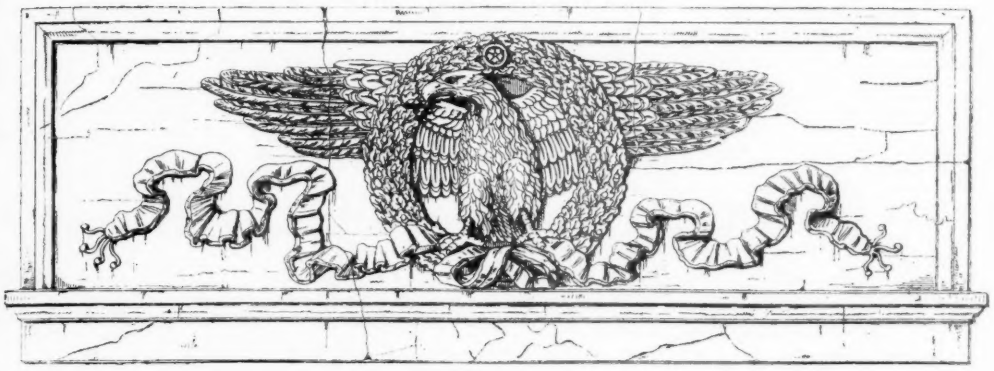

SOME CHARACTERISTICS OF PRE-CONQUEST ARCHITECTURE.

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THE term "Saxon," as applied to certain architectural monuments in England, has passed through some vicissitudes. A century ago the word was commonly applied in a loose sense to denote all round-arched mediæval structures, including those of Norman origin. Such misusage ceased on the publication of Thomas Rickman's *Studies of the Styles of English Architecture*, which first saw the light in 1813. In Rickman's epoch-making essay the Norman is made the first of the styles which are there described and discriminated; while, with respect to earlier work, the author notes that "though many writers "speak of Saxon buildings, those which they describe as such are either known to be Norman, "or are so like them that there is no real distinction." He admits, at the same time, the probability that "in some obscure country church some *real* Saxon work of a much earlier "date may exist," though "we have no remains *really known* to be more than a very few "years older" than the Conquest. At the same time, though these words appeared in the text, Rickman added in an appendix a very good description of some of the outstanding features of pre-Norman work, and a notice of twenty characteristic examples. The successive later editions of the *Attempt to Discriminate*, issued under the care of Mr. John Henry Parker, contain an ever-increasing list of examples, which, in the edition of 1862, the last but one that has appeared, number 123. It need hardly be said that this list is not authoritative. It is both redundant and defective, and is only useful as a starting-point for investigation. It is somewhat unfortunate that in the latest and current edition of Rickman, issued in 1881, the sections on Saxon architecture are withdrawn in view of a separate publication on the subject, which was to form a companion volume and to treat systematically the whole period in question. This volume has, however, never seen the light. Meanwhile, Bloxam's well-known *Principles of Gothic Ecclesiastical Architecture* had contained a chapter "Of the Anglo-Saxon Style," with a list of 130 examples, and good descriptions and illustrations, which, however, apply rather to details than to the general form and character of the monuments. This chapter in Bloxam and the notes in the various editions of Rickman up to 1862 form the only general dissertations on this subject available for the student of our architectural history. There is no subject, however, which has in recent years

attracted to itself more attention among local antiquaries and investigators. The pages of the published reports of our numerous county and district architectural and antiquarian societies bear evidence of the work which is in progress in this special department of inquiry. The number of examples in which the eyes of local experts discern some remnants of pre-Conquest masonry steadily increases, while from time to time there are published Papers, like those by Mr. Clement Hodges on the "Pre-Conquest Churches of the Ancient Northumbria,"* which, dealing in a scientific manner with a considerable group of monuments, add much to the general stock of knowledge. It may be noted, in illustration of this, that in the two counties of Northumberland and Durham alone Mr. Hodges numbers eighteen sites on which there are still to be seen some examples of pre-Conquest architecture. Of these nine, or just one half, are not mentioned in either of the general lists quoted above. Again, at the other extremity of the country, in that most archæologically interesting county of Sussex, while Rickman and Bloxam only name eight examples, the writers of Papers in the Sussex archæological collections mention more than twenty; though one must say that some of these, like Ovingdean and Hangleton, near Brighton, are in appearance rather early Norman than Saxon.

The investigations of local experts are the primary conditions of advance in the study of this interesting epoch in our national architecture. No one explorer can make the needful minute examinations of sites and fabrics all over the country, though the number is not so great as to preclude the possibility of one person visiting them all. The more general student finds his place and function when the time comes for the task of bringing together and co-ordinating the results of local research, with a view to the establishment of canons of criticism. Such a task might well occupy the attention of the Royal Institute of British Architects. As the centre of architectural study and practice, the Institute would be fulfilling one of its functions if it could render generally accessible such information as can be verified as to the earliest group of English monuments. What is required first is what the French would call the *statistique monumentale* of pre-Conquest architecture, such as would be furnished by a verified list of sites, with a brief indication in each case of the character of existing remains, or a map giving the names and geographical distribution of places where pre-Conquest work is to be found. If this idea commended itself to the Council, some consideration might be given to it by those specially interested in the more antiquarian side of architecture.

The monuments which are ascribed, with some good show of reason, to pre-Conquest times are distributed fairly evenly over the eastern and midland districts of England, and are perhaps more specially abundant than elsewhere in the districts about the Tyne and the Wear in the north, in Lincolnshire and Northants, in Hampshire and Sussex. Their comparative infrequency in the west generally (except in Shropshire), and their absence from the Lothians, from Strathclyde with Lancashire and Cheshire, and from Dorsetshire and Devon, may be partly due to the fact that these counties have not been so thoroughly searched as the others; but it must have in large measure an explanation in history, and depend upon the manner in which the country was seized and settled by its Teutonic conquerors.

A list of examples of Saxon masonry presupposes the existence of certain criteria by which work of the kind can be, with some assurance, identified. Appearing as it does in the architectural history of the country between the Roman and the Norman periods, Saxon work might seem at first sight very easy of identification. The styles of building of both the Romans and the Normans are particularly well marked. Their materials, forms, processes, all obey certain well-understood, unvarying formulæ. No builders were more consistent in their procedure and more faithful to tradition. Roman work, one would say, and Norman work are

* See *The Reliquary* for 1893–94. Bemrose & Sons.

alike unmistakable. Whatever was produced after the Romans left, and before the arrival of the Normans, will be at any rate readily recognised as neither Roman nor Norman. This mode of argument may apply in the case of Roman work, though even here it is not always quite convincing. In the case of Norman work, on the other hand, the idea that this unmistakable character belongs to it throughout, and at all its periods, may be a very misleading one. Before about 1100 the Norman style exhibits these special features in important buildings, but in small and unpretending structures it shows itself still uncertain and tentative. Thus, at Bernay, in Normandy, in the first half of the eleventh century, and in Edward the Confessor's buildings at Westminster, the masonry and details have the pronounced Norman character; while country churches in Normandy contemporary with Bernay, and those erected in Britain in the first generation after the Conquest, are often built irregularly of small materials, and are destitute of those special constructive and ornamental features by which the style is generally recognised. Between such unpretending, characterless Norman masonry of the close of the eleventh century, and Saxon work of its middle decades, it is not always easy to decide. A good illustration of what is meant may be found in the small church of St. Oswald, at Paddlesworth, on the downs above Hythe, in Kent. From its historical associations, it is one of the most interesting little churches in the southern counties, especially to a denizen of the north; while architecturally it is so plain, and in construction so rude, that it is generally pronounced a work of pre-Conquest times. There is only one marked feature, a curiously low south doorway, and this has Norman characteristics; but putting this apart, the general style of construction would suit an early Norman just as well as a Saxon date, and this is just a type of many churches, especially numerous in the south, that are certainly of the eleventh century, but may equally likely be of Norman as of Saxon origin.

The same may be said about a class of structures, usually claimed as Saxon, which exhibit in many cases such strong Norman affinities that their origin is sometimes doubtful. I refer to some of the numerous belfry towers which form, perhaps, the most outstanding feature of the pre-Conquest work in general. Saxon towers are one of the many problems which meet the student of this subject. They vary doubtless in date; but at what period and under what circumstances they first came into use it seems impossible at present to decide. However old the most ancient of them may be, the style of a considerable number, indeed the majority, of them is such as to point to a date in the eleventh century. They have their own special non-Norman features, but, in the case of a certain number of them, these are blended with elements of Norman character, and leave us in doubt as to what period of the century saw their erection. The tower at Appleton-le-Street, Yorkshire, claimed by Mr. Clement Hodges as pre-Conquest, possesses these Norman elements; so does Jevington, in Sussex, as well as some of the Lincolnshire towers. For examples of this kind I would suggest the term "transition Saxon." As was pointed out by the late Professor Freeman, the Conquest need not be supposed to have made an absolute break in the building traditions of the country side. If Norman master-builders and workmen came over to superintend and carry out important commissions in the rebuilding of cathedrals and abbeys, in other parts of the land Saxon masons may have been carrying out in their native style the more modest orders of Norman lairds and priests.

Although it may not be possible in every case to separate Saxon work from Norman, or even from Roman, yet it possesses its own distinctive features, which entitle it to a position apart in architectural history. We may demand, in the first place, What are the more general characteristics in which may be held to consist the individuality of the style? Is it possible, it may be asked, to describe in a few words the general appearance of a Saxon building? One would note here, first of all, a certain air of simple and severe massiveness which is a common, though not universal, characteristic of these monuments. The tower of Clapham Church,

near Bedford, is a capital illustration of this characteristic. There is generally a considerable rudeness in the masonry, but this is so often the noble rudeness of primitive stonework that it becomes a mark of distinction; while not seldom the use of blocks of abnormal size lends to the structure a certain megalithic aspect. This last trait is to some extent Roman, but it is opposed to Norman practice. The use of large material is rare in Norman work. Though in certain examples, such as Bernay, the stones are of substantial bulk—some two feet by eighteen inches—yet, as a rule, Norman stones are of moderate dimensions, and we do not find specially large blocks singled out, as is the case in Saxon work, for particular positions, such as quoins.

Simplicity, however, is not the unfailing character of Saxon buildings. In sundry examples this quality is obscured by considerable effort after enrichment. The enrichment is, however, of such a kind that it strengthens rather than reduces the impression of rudeness, for, though at times elaborate, it is tentative, illogical, bizarre, and seems to bring before us craftsmen working, not according to a living tradition of style, but from imperfect remembrance or hearsay. Accordingly, we may describe pre-Conquest architecture in general terms as presenting a decidedly primitive aspect; but it is primitive, partly because it is simple and rude and massive, and partly because it is somewhat childish and uncivilised in its enrichment and its details.

There is no space within the limits of a single Paper to notice all the various characteristic marks of pre-Conquest buildings. They are, moreover, tolerably well known, and many of them are described in Rickman and in other text-books. The following notes refer to points that are of some special significance, or have been made matters of controversy.

Saxon masonry has, in regard to its facing, no special consistent character, and the various forms may be paralleled in early Norman work in France and in England. It varies from the well-cut and dressed ashlar of Bradford-on-Avon, whose builders had the advantage of the fine Bath oolite, to rubble-work of various degrees of rudeness. Masonry of stones, squared, indeed, but not accurately squared, and laid in level courses that are not consistently levelled, is very characteristic of Saxon work of the better kind, and is well represented at Bosham, near Chichester, and Billingham, county Durham. It may be worth noting that herring-bone work, which used at one time to be regarded as something specially Saxon, does, in fact, hardly occur at all in the style. One would venture almost to exclude it from the list of Saxon forms. It is used, of course, by the Romans, and is very common in Norman work of the eleventh century. Country churches in Calvados exhibit it in profusion. In our own country where is it that we find it? Chiefly in early Norman walling, such as the enceintes—not the keeps—of Lincoln and Rochester; in Gundulph's tower at West Malling; in the early Norman—not Saxon—church-tower of Saint Peter's at Bedford. Where it occurs in pre-Conquest work it can often be explained as a restoration. Thus it appears in the much-patched tower of St. Mary Bishophill junior, York; and there are courses of it at the summit—but only there—of the tower of Bolam, Northumberland, which is one of the examples best termed "transitional Saxon."

Commending this point to future observers, we may go on to note that the external use of plaster is proved in many cases by the setting back of the wall-face half an inch behind the quoins; but it would be rash to say that where this does not occur plaster was still originally used. In many instances, as at Sompting, the plaster still remains; in others, such as St. Benet's, Cambridge, it has been removed in quite recent times. There is, indeed, a rage just now for stripping these old walls of their clothing of stucco. The process leaves them often shiveringly naked and rather ashamed. The effect, for instance, in the interior of the church at Lyminge, Kent, is hardly decent. It is of course a great advantage to the archæologist to

be able thus to study his buildings in the nude; but plaster is often an obvious artistic necessity. On the other hand, one cannot imagine that masonry like that at Bradford-on-Avon, which Mr. Parker, when he thought it twelfth-century work, pronounced "remarkably good, "clean, and fine-jointed," was ever plastered.

The absence of buttresses is a noteworthy feature of Saxon as distinct from Norman walling; but the chief peculiarity is to be found in the quoining. The corners, whether of tower, or nave, or chancel, are often constructed of the familiar so-called long-and-short work, but in many examples they are formed of very large and massive blocks, contrasting with the smaller material of the rest of the fabric; and it is from this feature that Saxon buildings derive that semi-megalithic character already spoken of. It need not be pointed out that the quoins both of Roman and of Norman buildings are not specially remarkable in construction or material. Norman corner-stones are, as a rule, all of the same size and shape, and are bonded alternately north and south, and east and west, into the walls whose juncture they effect. Though carefully chosen and dressed, they do not differ much from the material in the rest of the wall. This difference is specially accentuated, on the other hand, by the pre-Conquest builders; and a Saxon quoin, appearing as it often does in a late mediæval fabric as the sole relic of an earlier age, is always unmistakable, and always impressive in its look of rugged strength. The south-west corner of the nave of St. Mildred's, Canterbury, is an excellent example.

Although not buttressed, the walls of many Saxon buildings are treated with a composition of pilaster strips, joined above by round or straight-sided arches. In the case of some of the towers, notably Earl's Barton and Barton-on-Humber, this strip-work is a most prominent feature, and the constructors have taken immense pains with it. No characteristic of Saxon architecture is better known than this one, and it is generally explained as a reminiscence of timber construction. This, however, with other similar questions of origin, must be discussed at a later stage.

Of the fabric, as distinct from the facing, of the wall, there falls to be noted a very important and far-reaching difference between the work in question and that of the Romans and the Normans. The Saxon wall is a single thing; the Roman and the Norman wall—at any rate in the twelfth century—is a threefold affair, consisting of two carefully constructed outer faces and an interior filling of rougher material. Partly in consequence of this mode of construction, the Norman wall is generally thicker than the Saxon, and it is to the credit of Saxon builders that their comparatively thin walls, often less than three feet in thickness, have stood as well as has been the case. In the one ruined pre-Conquest wall I have examined—that at Sockburn, on the Tees, where Mr. Hodges identified some early Saxon work—there is a thickness of about two feet four inches, and the stones forming the two faces nearly meet in the middle. The difference between the two systems comes out in the case of the belfry openings and other double or multiform apertures, where the drop of the wall between two arches has to be supported from below. The Saxons, dealing with the wall as a simple thing, cut their apertures straight through its thickness, and adjusted under the drop a long slab or beam of stone, under which, again, in the middle of its length, they set an upright stone shaft. This shaft often takes the form of a turned baluster, and, as such, is one of the most familiar features of Saxon architecture. As it stands half-way through the thickness of the masonry, it is often termed a mid-wall shaft.

It is interesting to see how this same point of construction is dealt with in other styles. The solution of the problem by the Normans is very logical and highly characteristic of their procedure. As their wall is threefold, consisting of two faces and an internal core of rubble-work, they construct undergirding arches beneath the central third of the thickness of the

masonry, and carry these in the middle on a shaft with a properly designed base and capital. This "recessing" is a specially Norman trait; and, as the Saxons never resorted to it, it forms an excellent mark of division between the styles. Elsewhere we find the same problem somewhat differently solved. In the early Italian campaniles, and in the arcaded openings of cloister walks, such as the very ancient examples at the Tre Fontane, near Rome, the double or triple openings are cut straight through the wall, and the support is provided by a mid-wall shaft, the capital of which spreads out in the required direction so as to overlap the suspended masonry. This arrangement is in accordance with the established grammar of architecture. The column is equipped with base and capital in the recognised classical manner, only the latter receives a special shape to suit its position and function. In the Saxon work there is nothing organic. The shaft may in itself be elaborately enriched with turnery forms, but in this case it has neither capital nor base. It may be plain, but supplied with a rude apology for base and cap, or it may be a simple upright post under the middle of the transverse stone. It just serves as a prop and nothing more, whereas the Italian column has a part of itself—the capital—growing outward into a form specially designed to enable it to do its work in an intelligible as well as effective manner. This is a good illustration of the crudities and makeshifts which occur throughout pre-Conquest work, and make us feel that it was carried on a little apart from the main thoroughfare, so to speak, along which the art was progressing in Western Europe generally from its classical to its mediæval phase.

Door and window openings present some of the most characteristic features of the work we are dealing with. The appearance of sloping jambs, which reduce the width of the aperture at the top of the opening, is a very special trait, and does not occur in Norman masonry. On the other hand, there is no true test to be derived from the splaying of the window-openings or from the particular construction of their heads. The so-called straight-sided arch, composed of two flat slabs leaning against each other at an angle, and the window or door-head cut in round form out of a single stone, have been accounted specially Saxon; but, as a fact, they occur also both in Roman and in Norman work.

The curious mouldings and incidental carved details of pre-Conquest buildings in their number and strangeness almost defy classification. At first sight we might take them to be the merely fanciful creations of an artificer who desires to enrich his work, but has no stock of traditional patterns, nor any knowledge of recognised principles or methods of ornament. Looking a little more closely, however, we discern in a great number of cases a pronounced, though clumsy, copying of Roman features; while in other cases there is an approximation to the regular Romanesque forms which were becoming established in the different European centres during the eleventh century. It is an obvious criterion of date to place those buildings earliest which make the most conspicuous use of Roman motives, while affinities with Norman or other recognised Romanesque styles suggest a comparatively late epoch. The application of this criterion is not, however, so easy as it seems, for there are cases in which we note a curious mixture of forms, apparently Roman, with others that have a marked mediæval character. Nor is it the actual forms themselves that are so noteworthy, as the curiously ungrammatical way in which they are employed. They are used with very little sense of their connection with each other and with the general scheme of construction. In the tower-arch at Stow, in Lincolnshire, one of the finest pieces of pre-Conquest work in the country, the half-round and the square pilasters that flank the opening start from formless blocks, serving as bases, which rest on the edge of a lofty plinth. The plinth is, however, of so shallow a projection that the blocks hang helplessly suspended, for the greater portion of their bulk, in the air two or three feet above the ground. In the extraordinary chancel-arch at Bosham we find an elaborate base of many members, exceedingly massive in construction, and some

three feet high. This forms a very suitable point of departure for the arch-pier. But what is our surprise when we follow this upwards and find ourselves confronted by the same forms repeated exactly, only in reversed order, and made to serve as a capital! The obvious differences to be observed in treating a base and a capital seem to have troubled the architect at Bosham as little as did the natural connection between an architectural base and the ground give concern to his brother builder at Stow. This chancel-arch at Bosham is a good illustration of what has just been remarked about the apparent mixture of forms. Taking it as a single feature independent of the rest of the church, we should say the base and capital were Roman, but the pier itself Romanesque. It is recessed, and has angle-shafts, and though angle-shafts occur as early as about 500 A.D., they are characteristically mediæval, just as are the large roll mouldings on the archivolt.

It would be tedious to dwell more at length on the details of pre-Conquest churches. To judge from those features of Saxon work at which we have been glancing, we might pronounce it too crude and tentative for the notice of the practical architect, who has to study the old monuments of his country with an eye to hints for his own professional procedure. It may seem stuff rather for the antiquary than the artist—a sort of accidental product of a semi-barbarous period of our national existence, with no real interest for the modern worker—and it is true, no doubt, that we fail to find in pre-Conquest architecture any consistent working-out of a style, in which constructive and decorative features are moulded into harmony; or any principle of development, of unfolding, by which we are led on from period to period, and observe how the forms of each epoch grow out of those that went before. We may talk for convenience' sake, as in this Paper, of the Saxon style; but there is, strictly speaking, no Saxon style, in the sense in which we speak of a Norman or a Perpendicular style; nor is there any connected history of Saxon architecture, as there is of Gothic or of Renaissance. But, after all, architecture is not an affair only of "mouldings, features, and "ornaments," or even of ground-plans and elevations. An architectural monument is the creation of an age, and is the outward expression of its ideas, the practical response to its aspirations and its needs. The interest of a social and historical kind that becomes in this way attached to it is something different from the more technical questions that concern its outward aspect as piled and carved stonework. The work we are considering possesses a genuine and lasting interest, independent of any criticism of its detail; but this interest only emerges when we come to take a somewhat more extended view.

It has been a defect in most of the general text-books on English architecture that they begin and end with a discussion of the details of buildings rather than of the buildings themselves. The services of Thomas Rickman to the study of the architectural history of England were so enormous that one does not like to say even a word in adverse criticism of his method. Yet, for the sub-headings of a chapter on Norman architecture we surely need something broader and more philosophical than Norman doorways, Norman windows, Norman arches, piers, buttresses, tablets, niches, ornaments, capitals, bases, and finally, in conclusion, Norman steeples, battlements, roofs, fonts, and porches. With a few words—excellent, no doubt, but very few—on the spirit of the style, we are taken on to early English doors, windows, arches, piers, buttresses, tablets, niches, ornaments, steeples, battlements, roofs, fonts, and porches. It is true that later editions of Rickman's work contain large additions, with much historical information by his editor; but these are accretions round a structure defective in its original plan. We cannot see the wood for the trees. We cannot gain a clear idea of the general laws underlying the growth of buildings from a treatment that only takes account of the details in the finished result.

From the point of view thus represented in our text-books, there is not much to be made of pre-Conquest architecture. A synopsis of Saxon doors and windows and ornaments could easily be made a mere museum of curiosities. When looked at, however, in the general mass, and not in details, there are many Saxon monuments that claim the admiration even of the technical critic, who has no interest in archæology for its own sake. No one can regard without a sense of wondering awe the monumental tower at Earl's Barton, or that chancel-arch at Bosham, or the tower-arches, and transept-quoins at Stow. No one enters, unmoved, the much-restored, but classically precise, little oratory at Bradford-on-Avon, or the unique and perfect stone church at Escomb, county Durham, where service has been performed day by day or Sunday by Sunday for well-nigh eleven hundred years. No one fails to be struck by the severely simple, but architecturally treated, masses of the numerous bell-towers, of which St. Benet's, Cambridge, is a well-known example. These, and other structures of the same order, would be recognised as fine monuments wherever they appeared. They are architecture, and noble architecture, too, though curiously ungrammatical in their employment of detail.

The more extended view referred to above takes cognisance of historical considerations, as well as those which more strictly concern the architect. From this standpoint there is a value in every fragment of Saxon masonry upon an ecclesiastical site. However insignificant it may be in itself, it testifies to the existence, where it stands, of a stone church before the Norman Conquest. It may be the case that, as was stated by a good authority not long ago, "except in large towns, there were few parish churches at the beginning of the present century "whose sites were not already occupied in Saxon times"*; but only where there is some surviving work do we have absolute assurance of the fact. It need hardly be said that many Saxon churches were of timber, and these would necessarily yield to time, and would be replaced by stone buildings in one of the mediæval styles. It does not follow, therefore, that because an ancient country church contains no work older than the Norman epoch, the site was not previously occupied by a Saxon building, for this may have been of wood. One such pre-Conquest wooden church survives substantially to this day at Greenstead, in Essex. The question of the proportion of stone churches to wood in Saxon times is one that has often been asked but cannot be accurately settled. We need only turn over the pages of Bede to see that, from the first, churches were built of the more permanent as well as of the slighter material, and this was evidently the case throughout the Saxon period. Wood was sometimes found unexpectedly convenient from its lightness, as the following story shows:—St. Dunstan was once about to consecrate a wooden church, and noticed, as he walked round it, that it was not correctly oriented. The saint accordingly gives it a shove with his shoulder, and turns it round into the right direction!

We are only concerned, however, in this Paper with existing monuments. And what value there is, for the student of history in architecture, in even a single Saxon quoin or window! It gives the historical imagination a central point round which it can rove, while it seeks to restore in thought the old social organisation of the country-side. The rural village is the oldest and most permanent institution in the land; and the village green and sometimes the village church are the heart and centre of the quiet life that has gone on there almost unchanged since the first Teutonic settlement. It is dangerous to attempt to reconstruct local history from local topography alone; but to ignore all the evidence of topography and to write history from written records only is wilfully to ignore a most valuable source of our knowledge of the past. The importance given to the study of sites and roads, and the form and aspect of settlements, is one of the features in the work of the present school of British historians.

* J. T. Micklethwaite, *Archæological Journal*, vol. xxxvii. p. 366.

Now the Saxon manorial estate, the unit of the social organisation of the country in early mediæval times, survived in the main features of its working almost to our own day; and even now, looking down from some neighbouring hill, we can often see, almost as clearly marked as of old, the hall and "inland" domain of the lord of the manor, the groups of houses of the villagers, the arable and pasture land which they cultivated and enjoyed in common, and the more distant woodland and waste in which they had certain rights of grazing and felling. The lord on the one side and the "villains" on the other formed the two main elements of the society, and their mutual relations at different periods are matters about which historians are by no means agreed. The village green, in the midst of or in closest proximity to the cottages, and only enclosed by the roads or trackways along which these are built, has belonged, one would surmise, from the very first days of the settlement to the freemen of the community at large, who exercised there in games and mimic strife the sinews and the spirits so long accustomed to wandering and war. And what of the church? If we examine Saxon records, the impression we derive is that the church was in most cases the work of the lord of the manor—a sort of chapel attached to his residence, and kept up and served at his expense. We must remember, however, that these written records are mostly concerned with the doings and desires of the great ones of the land. A good many things might go on in the isolated self-centred village communities without a notice in contemporary documents. Was one of these things the building and maintenance of a shrine for common worship and for all the kindly ministrations of the Church? It would take too long to review the literary evidence on the question; but from our present point of view it is worth while to note that the position of the village church in its surroundings is often in itself a piece of evidence. There are cases in which it stands in immediate proximity to the manor-house or its ancient site. At Kilpeck, in Herefordshire, and Earl's Barton, in Northants, the earthworks of a Saxon "burgh" rise actually from the churchyard; but at other times the church stands in the midst of the cottages, or abuts on the village green, and seems to belong to the community at large. Possibly in such cases its foundation was an act of that corporate life, independent of the proceedings of the lord, of the existence of which there are clear traces in the records of rural societies.

Whatever was its first origin, the village church has remained, through all the mediæval and modern periods, a standing witness to the stability of our social institutions, and is like a monumental tablet on which successive generations have each left a characteristic record. There is a certain church, one of many hundreds up and down the country, in a little-visited rural hamlet in Sussex. There are one or two farms, a few cottages, a village inn, islanded in a rolling sea of meadows. Within the ample churchyard stands the church, and close beside its gate the trim and newly erected village school. The pretty schoolmistress comes in out of her flower garden to hand to us the key of the porch. We ask her, Does she teach the children anything about the parish church, its history, its architecture, its monuments? Is it ever made an object lesson for a class? "No," she replies, "nothing of this sort has been "done as yet, but this will perhaps come in time." We both agree in hoping so, for the church as it stands there, recently restored, well overlooked and tended, is one of our national treasures—a possession of a class in which no other people can rival us. It is ridiculously too big and imposing for the tiny hamlet that nestles round it to-day; but if we knew its history we should see that in its general form, as well as in its parts, it was just a necessary growth out of the social circumstances of the various epochs at which it was wrought. Big Saxon stones at the north-west and south-west and south-east corners of the nave show that this was already in pre-Conquest times of ample proportions, while the good-sounding Saxon name of the place, compounded with a patronymic, brings before us a society originally,

no doubt, of clanfolk, using in common, if they did not build in common, the village shrine. A small window in the south wall, headed with Roman bricks, suggests that still older memories hover round the spot, for the walls of a deserted Roman city are crumbling into ruin not many miles away. The present structure has a western tower and spire, a chancel, and a north aisle, all in the Pointed style; but there is also a north aisle to the chancel, and this is of Norman work. The existence of the last proves that the Saxon chancel lasted on till the thirteenth century, or otherwise the Normans would have built the chancel instead of only adding an aisle or chantry to the north. For the rest, the building, like so many hundred others, has its own quaintness of mediæval fittings, its divisions, its monuments, and is a picture-book, an illustrated history, reflecting much of the social life of lords, of Churchmen, of the people, during long ages of the national existence.

In these days of revised codes for primary education, when visits to town museums count as part of the regular work of our Board schools, the same system might be extended to the country. The parish church might take the place of the museum, and the village children be taught to read with intelligence the records of the past enshrined in stones and woodwork, too often associated only in their minds with the constraint of Sunday services.

It has just been stated that the monuments of pre-Conquest architecture reflect the political and ecclesiastical, as well as the social, history of the country during the whole of the early mediæval period. The special epochs when we should expect church building to have proceeded most energetically are, first, the flourishing era of the British Church, before the inroad of Teutonic heathendom; and next, the time of the conversion of the Saxons to Christianity, partly by Roman, but, in far larger measure, by Celtic, missionaries. Then follows, at a later period, the ecclesiastical revival under Dunstan, in the early part of the tenth century; and, lastly, the rebuilding by Canute of the churches destroyed during the last Danish invasions, in that great epoch of church architecture, the early part of the eleventh century.

During the centuries from the ninth to the eleventh (except in the Dunstan period) the country was so harassed by Danish raids that church building must necessarily have been somewhat restricted; but, on the other hand, the same period saw the development of military works for national and for private security. These works hardly come under the head of architecture, as they consisted entirely of mounds or earthen ramparts, strengthened with ditches, and surmounted by palisades and block-houses of timber. Those pages of the *Saxon Chronicle* which deal with the Danish wars from the end of the ninth century are full of notices of the construction, or rather digging, of "burghs," as part of a system of national defence against the invader. It was under these circumstances that there became established the well-known obligation, binding upon all holders of land, called the *trinoda necessitas*, according to which the latter were expected to join in the national levy for military service, and to do their share in making fortifications and repairing bridges. It is evident that this ordinance was not, as it has sometimes been considered, a primeval custom of the Teutonic tribes. It is not mentioned in those land charters prior to the Danish period which we possess actually in originals, but after the Danish wars had reached a head all charters contain the provision. The *trinoda necessitas* figures, however, in those early land charters which we possess only in later copies, and the explanation of this fact is that the copyist was so accustomed to see the clause in the documents he was most familiar with, that he inserted it when he was copying out those older ones in which it was really wanting. The "burghs" thrown up under these circumstances were evidently very numerous, and private castles were added to the national defences, so that we may say generally that the Saxon fortified manorial seats, of which there is such an excellent example at Rayleigh, in Essex, came into existence

in the Danish period. The stress laid in the *trinoda necessitas* upon bridge-building is interesting. Bede tells us that in his time Roman bridges were conspicuous in the country, and the Saxons may have learned to copy them. The Danes, ascending the rivers, would naturally destroy the bridges wherever they came, and hence the provision in the land charters for their upkeep.

This Danish period has, however, a more direct connection with our immediate subject. In relation to the defensive works just mentioned, an hypothesis will readily present itself, that the characteristic Saxon church towers owed their origin, in part at any rate, to the circumstances of these times of peril. It is a well-known fact that towers belonging to ecclesiastical buildings have served both as watch-towers and strongholds. It is one theory about the Irish round towers, that they were constructed for purposes of refuge and defence at the time that northern sea-rovers were infesting the shores of Erin. One of the earliest datable church towers in Europe, that of Sant' Apollinare in Classe, at Ravenna, erected, if contemporary with the church, as seems to be the case, about the year 540, was reared on a coast exposed to the descents of the Saracens, who did actually plunder the church in the middle of the ninth century. "Saracen" towers are abundant in many parts of Italy. The good folk of Corneto, on the coast between Pisa and Rome, say that their city once possessed one hundred of such towers, all built for the protection of the people against the dreaded sea-rovers. The twin towers marked on the plan of St. Gall, of about 800 A.D., are inscribed as watch-towers, and from their position, flanking the single entrance to the monastery, they may well have served also as *propugnacula*.

Now, when the sea-rovers we know as Danes were ravaging not only the coasts of England, but also the whole country so far as it could be reached by means of rivers, what would be more natural, it may be argued, than to equip the village church as a temporary stronghold, by adding to it a solid stone tower as a fire-proof refuge for the inhabitants of a threatened hamlet!

There is something to be said for the hypothesis. The towers occur in great numbers all along the exposed north-eastern coast, from Whittinghame in Northumberland southwards, and are especially numerous in Lincolnshire and Northants, where we know the Danes were busiest. Though many of these towers are certainly of the eleventh century, others show so little approach to normal Romanesque forms that we must date them considerably earlier. Such towers as Earl's Barton, Barton-on-Humber, Barnack, would be phenomenal in the eleventh century.

In construction the towers would suit this supposed purpose fairly well. That they are solidly built is proved by their survival, though the walls are, as a rule, not so thick as in Norman work. How they were terminated above is uncertain. Only in one instance, that of Sompting, is the original finish perpetuated, and this is in the form of a pointed helm. Many of the towers, however, are sufficiently well preserved to show that their walls did not run off into pointed gables, as at Sompting. The square towers of the eleventh century in Normandy were sometimes terminated with a pyramidal cap in masonry, of which an original example remains in the now ruined church at Thaon, in Calvados; but sometimes they are terraced above for the station of a look-out and for a beacon. As there is no trace, so far as I know, in Saxon towers, of a pyramidal cap of stonework, we may assume them to have been in most cases flat-topped, and this would have rendered them suitable for purposes of defence. In shape they are commonly tall and slender, with unbuttressed walls and without sets-off, often, indeed, without even a stringcourse. The window openings, on all sides but to the church, are in the lower storeys very narrow, and in the majority of cases, but by no means universally, the only doorway opens into the church. It is in respect to the

doorways that we find what seems a fatal objection to the hypothesis under consideration. The doors are invariably on the ground level, and are marked nearly always by considerable width and ornate treatment. When the entrance is from the church it has the form commonly of a spacious archway, which bears no sign of even having been closed by a door, and which has been used by the builder as a place to display his inventiveness in impost and archivolt mouldings. Now, as the lower storeys of the towers are never vaulted, the floors must have been of wood, and had they been places of refuge such easy access would never have been permitted to foemen armed with firebrands. One special characteristic of the Irish round towers is that they have their only doorways at some height from the ground, and inaccessible save by movable ladders of wood. This same arrangement occurs in the fine eleventh-century tower at Vire, in Normandy, but never in the pre-Conquest towers of our own country.

On the whole, the hypothesis of a parallelism between the Irish round towers and the square towers of the Saxons, though worthy of attention, can hardly, in our present state of knowledge, be maintained. Both countries were suffering at the same period from the ravages of the sea-rovers, and the same need for places of temporary security must have been felt in both. As in the case of the Saracen descents on Italy, this need could suitably be met by the erection of stone towers; but we cannot say with any certainty that the Saxon towers, though, perhaps, in many cases dating from the Danish period, were reared originally for this purpose. These towers might be studied with advantage in connection with the early specimens in Normandy. There are instances there, for example, of the curious round openings, or *oculi*, that occur in the upper stages of some Saxon towers, such as St. Benet's, Cambridge, and some Tyne-side churches. In Normandy they seem to have been connected with some system of signalling out to sea.

Leaving now this question of the towers, and the Danish period generally, we may go back to examine the forms of some of the earliest churches, in connection with which we shall find, again, some points of great historical interest.

It does not fall within the scope of this Paper to deal with the monuments of the Romano-British Church, but it may be said in passing that, putting the example at Silchester apart, the only existing building in the country known to have been a church, which looks as if it had been built by Roman or Romanised workmen, is the little chapel of St. Pancras, close by St. Augustine's, at Canterbury. The brickwork there is certainly good enough to be called Roman technique; but it is quite impossible to believe that Romans or Romanised Britons put together such irregular masonry as we see to-day at St. Mary's, Dover Castle, or Brixworth in Northants. A portion of the now ruined church at Reculver, Kent, was certainly part of a Roman building, though whether this was a Romano-Christian church is more than doubtful. In the case of all these three buildings, we have some literary indication of a date which would place them within the seventh century, and with this period their technical characteristics seem well enough to agree. We must regard them as essentially Saxon buildings of the earliest epoch, though constructed in part of Roman materials. With these we may contrast certain other well-authenticated structures of the same era, which belong mostly to the ancient Northumbria. The two crypts at Hexham and at Ripon, constructed by Wilfred about 675 A.D., need not detain us; nor yet the great church erected by him at the former place, which was said not to have its equal this side of the Alps. This church, which lasted on as the nave of the great Abbey Church at Hexham till the thirteenth century, has now disappeared, and it is only possible in this Paper to take note of existing remains. For these we must turn to the work of the contemporary and friend of Wilfred, Benedict Biscop, who built the two famous northern monasteries at Monkwearmouth and Jarrow between the years 674 and 680. At Monkwearmouth there is only preserved the western porch, over

which was subsequently erected a pre-Conquest tower, and the western wall of the nave; but the descriptions we possess of the sister church, now demolished, which he built at Jarrow enable us to form a clear idea of its whole general aspect. Not far away, at Escomb, near Bishop Auckland, there stands a stone church, absolutely complete save for some inserted windows and a later porch, which can be confidently pronounced to date within the succeeding century. To match these northern examples we have in the west the chapel of St. Lawrence at Bradford-on-Avon, Wilts, erected by St. Aldhelm in the first years of the eighth century.

Only dealing now with these two small groups of seventh- and eighth-century Saxon churches, we have at once before us some interesting and significant facts. St. Mary's, Dover Castle, is a spacious, well-developed cruciform church with a central tower, of a form familiar, and indeed normal, in later mediæval days, but in the seventh century not a little remarkable. Canon Puckle calls it a basilica, and attributes it to the age of peace and prosperity in the British Church following on the cessation of persecution in the fourth century. It is, however, not a basilica, and in the early part of the fourth century it would have been practically impossible. We are so accustomed to cruciform churches that we often forget that they are really an abnormal, secondary form of building, without authority in early Christian traditions. The first cruciform church known was the Apostles' Church, erected by Constantine the Great at Byzantium, and afterwards rebuilt by Justinian. The second known structure of the kind is the well-known tomb of Galla Placidia at Ravenna, dating about 440 A.D. At this epoch the only recognised forms for churches were the basilican, and the circular or polygonal. Whence, we may ask, was the idea of the cross form derived? When we consider that the building of Galla Placidia was a tomb, and know that Constantine built his Apostles' Church as the burial-place of the imperial family, we may hold it possible that the first idea was given by the cubicula of the underground cemeteries. A square chamber in the catacombs, with *arcosolia* hollowed out in the face of each wall for purposes of burial, would closely resemble Galla Placidia's mortuary chapel, with its central space covered with a cupola, and the four short arms of the cross roofed like *arcosolia* with barrel-vaults, and containing the imperial sarcophagi. Whether or not this is the explanation of the first origin of this plan, its symbolic significance as cruciform was soon noticed, and it gradually grew into favour. The famous St. Ambrose of Milan was especially enamoured of the scheme, and his numerous buildings helped largely to spread the fashion.* The appearance of a fully developed cruciform church, with the central tower accentuated as a commanding feature, in the Britain of the seventh century—if this is really the date of St. Mary's—is well worthy of note, and illustrates the intercourse of Saxon England with the Continent. Other cruciform pre-Conquest churches in our country, such as Stow in Lincolnshire, Norton, co. Durham, and Stanton Lacy, Shropshire, seem of later date.

Turning now from the exceptional case of St. Mary's, Dover Castle, we note that Reculver and Brixworth are pillar-basilicas of a Roman type, such as we should expect to meet with at the time in Italy, or any thoroughly Romanised land. On the other hand, Monkwearmouth and Jarrow, Escomb, Bradford-on-Avon, are buildings of an entirely different plan, neither Roman nor Romanesque, but the outcome of traditions, the origin of which is not to be sought in any part of the Roman world. These traditions are Celtic, and the group of Saxon stone churches, represented centrally by Escomb, are directly descended from the stone oratories of the Celtic Church, which are most abundant in Ireland. In his *Ecclesiastical Architecture of Ireland*,† the late George Petrie gave an enumeration of the normal features of the Irish stone oratory, and there is scarcely a single one of these that is not exemplified at Escomb or Bradford-on-Avon, while they are almost all of them features that do not occur

* Mothes, *Die Baukunst des Mittelalters in Italien*, i. 139 &c.

† Dublin, 1845, p. 162 *f.*

in early Christian work of the Roman type. Brixworth and Reculver are perfectly normal and intelligible. Knowing Roman churches, we can readily understand them; but we could not explain or understand the other group save by reference to Irish and Scottish examples. The Roman churches are spacious, broad, and comparatively low, while the most striking general characteristic of the other groups is their height and narrowness. The church at Monkwearmouth measured 63 feet 6 inches by 18 feet 6 inches, and was 30 feet high to the wall-head. Old Jarrow Church was about the same. Escomb is of similar proportions, while at Bradford a nave measuring 25 by 13 feet has an elevation of 25 feet of wall. With this height of the side walls went a pitch of roof very much sharper than that of the basilican church. The original western gable at Monkwearmouth is still to be made out, and there are numerous other examples. The next point is the ground plan. This gives us in each case a long narrow aisleless nave and a small square-ended chancel. It is true that we know nothing directly of the chancels of Monkwearmouth and Jarrow; but Escomb and Bradford are perfectly preserved, and they agree exactly with the normal Celtic plan, while differing entirely from the apsidal arrangement of the basilica, as represented at Brixworth and Reculver, as well as at St. Pancras, Canterbury, and other southern examples.

Examining more into details, we note the sloping sides of door and window openings, as well as their termination above by a huge flat lintel. One of these over a window at Escomb is seven feet in length. All these features, as they are presented in this northern group, may be exactly paralleled in the Irish oratories figured in Lord Dunraven's well-known work.* The one difference between the Saxon and the Celtic structures resides in the stonework; and this admits of an easy explanation. Whereas rough or polygonal stones are used in the latter, in the Saxon reproductions we find squared and coursed masonry, though both cutting and laying are often irregular. This is due to the presence of Roman buildings in England, especially in the north, which furnished an almost inexhaustible supply of cut stones of every size and shape. The arches in some of these early structures, such as the porch at Monkwearmouth and the tower-arch of the early church at Corbridge by Hexham, are evidently Roman arches that have been taken down and rebuilt stone by stone. Roman impost mouldings are also in like manner appropriated. The great quoin stones, which make their appearance in the northern group of early Saxon churches, are in the first instance Roman stones selected for their exceptional size, though the Saxon masons learned later on to hew and saw them for themselves. This use of Roman material in buildings so obviously Celtic in plan and general appearance gives a curiously mixed look to a structure like Escomb which is not the least interesting point about it.

It would require considerable study and comparison of examples to decide exactly how far this Celtic influence was dominant in the plan of the earliest churches in the country as a whole. Kent was always the most Romanised part of England, and Kent was the special preserve of Augustine and his successors, who leaned habitually for support on Rome, and fled over to Gaul when a national rising made their position uncomfortable. That the churches of Kent should be apsidal in plan is quite natural. The country at large, however, owed its Christianity far more to the Celtic missionaries from Iona and Lindisfarne than to the members of the Roman mission; and Bishop Lightfoot was quite right when he stated emphatically that "not Augustine but Aidan is the true Apostle of Britain." The Celtic missionaries brought with them their own traditions of church building, just as they came charged with their own specially Celtic love of the monastic life. In each case the result was a far-reaching one. We do not know exactly to what extent the type of Escomb prevailed in Mercia and Wessex and East Anglia, for in most instances remains are fragmentary, and

* *Notes on Irish Architecture*, Lond. 1875.

it is seldom that we can make out from what exists on a pre-Conquest site the whole ground-plan of the church. There are, however, important indications which cannot escape the attention of those who investigate our older churches. How often are we struck by the curious height and narrowness of an ancient nave or chancel, like the nave of St. Nicholas, Leicester, or the chancel of Repton Church, Derbyshire! In not a few of these cases, such as Brigstock in Northants or Corbridge by Hexham, the traces of old windows are to be seen in the side walls above the present nave arcades. The explanation is that the nave walls belong to the original Saxon church, while Norman or pointed arcades have been opened in their lower part for communication with a side aisle, and this is probably the case in far more instances than we are at present aware of. In cases where the nave has been substantially rebuilt, as often occurs in Lincolnshire and the north, the same character of height and narrowness is indicated by its still preserved western quoins on each side of the tower. This height and narrowness are distinctly neither Roman nor Romanesque; where they make their appearance we may be safe in predicting the influence of Celtic tradition. A certain number of door and window openings, such as those at Brigstock, have the same sloping jambs which we have already noticed at Escomb. Furthermore, where indications of the eastern termination of the chancel are preserved, this is in almost every case seen to have the square-end characteristic of the Celtic oratory. Two notable exceptions among village churches are Wing in Buckinghamshire and Worth in Sussex, which are both apsidal. They are, however, in all probability late examples. Wing has just been undergoing restoration, and one would like to see an expert report upon the masonry; but so far as the plan and the forms are concerned, there is little that exhibits Saxon character, and the church might to all appearance have been erected at any time during the eleventh century. The case of Worth is different. Here we have distinct Saxon character in the details and masonry; but, seeing that Worth lies just in the heart of what was in early Saxon times the vast forest of Anderida, it must almost necessarily be a late example; and in Worth, with its breadth and roominess, its transepts and its apse, we see a result of the approximation to the regular Romanesque forms of the Continent which we should expect, say, in the early days of Edward the Confessor. With the exception, then, of these late examples, the apse in Saxon churches is confined to the few early buildings in which Romano-British or Augustinian influence is predominant. The Celtic chancel was, probably, throughout the prevalent form, and this fact has significance for the whole after history of our ecclesiastical architecture. The Norman prelates evidently favoured the apse, at any rate for large churches, as it was the form they were most accustomed to in their own land. The square end ultimately prevailed, and though there may have been other causes at work in its favour, the old Celtic tradition counted, no doubt, for much. When Bishop Herman of Ramsbury founded a new cathedral for the united Wiltshire sees at Old Sarum in 1076, and designed it with a square eastern end, the future of English architecture was, in this particular feature, decided in accordance with Celtic tradition.

If the general form of the normal Saxon church was rather Celtic than classical, we must look to Roman tradition for nearly all the peculiarities of masonry and details which mark the pre-Conquest style. With the exception of the sloping jambs, all seem ultimately Roman, though, as we have already seen, they were dislocated out of all shape and connection by the untrained builders who employed them. This is true, first, of the particular arrangement of stones called "long-and-short work." This feature merits a moment's special attention. We can discern here a useful criterion of date. The work in question is used first of all in door and window jambs, and does not appear in quoins until a later period. Big-stone quoins, not long-and-short quoins, seem to be the rule in the early work before the Danish wars. It may not be safe to lay this down as an absolute canon, but the truth of it is

worth testing by further observation. At St. Mary's, Dover Castle, the long-and-short work appears in the jambs of the doors south of the nave and in the north transept, while the quoin of the transept close by is built of the massive squared blocks. At Escomb and Monkwearmouth there are blocks at the corners, but the long-and-short in the jambs of the openings. If the canon is really sound, it enables us to understand how it is that the work is used with perfect logic and consistency in the jambs, while in the quoins it is often employed in an imperfect manner, as if it were a traditional form not quite understood by the builder. Strictly speaking, it is not "long-and-short work" at all, but "upright-and-flat work." Look at it in the jambs of the early buildings just mentioned. We see, for example, at Escomb, large flat slabs placed upright as facings to the opening, the full depth of which they cover. Above each comes a similar slab laid horizontally, and bonding firmly into the wall. The result is a construction both effective and permanent, and one that the Saxon builders made especially their own, though it is not probable that they invented it. The most conspicuous example of the use of this construction elsewhere, that is known to the writer, is in the jambs of the western door of the Parthenon, a Byzantine production of about the fifth century. The arrangement of marble slabs alternately upright and flat is exactly the same as at Escomb and Monkwearmouth, and in both cases an excellent flat lining to the door opening is secured.

When this method was transferred to the external quoins of buildings, we still find at times the flat stone, bonding fully into the masonry and showing its edge on both wall-faces, though in place of the upright slab there is a square upright pillar. Such a pillar, one would say, would hardly have grip enough of the wall to make it a good quoin, unless it were mortised into a sinking in the flat slab below, which is not, however, a stonemason's way of doing things. The pillars seem to have kept their places well enough in practice. Most often, however, instead of the flat slab we find employed stones the same shape as the upright pillars, but laid horizontally. Such stones only lie along one wall, and sometimes, to equalise matters, we find them in pairs, one above the other, one lying north and south, the other east and west. The name "long-and-short" is in any case hardly accurate, for the stones are the same length, only laid different ways.

If we must assume an ultimate classical origin for this characteristic of Saxon masonry, the same may be said of two other peculiarities—the baluster shafts and the strip-work. The former need not detain us; their origin is obviously Roman; but they none the less present problems of no little difficulty, into which there is not time to enter. It is noteworthy that the most elaborate examples known are also the most ancient. With the doubtful exception of some baluster shafts discovered in St. Mary's, Dover Castle, the specimens in the porch of Benedict Biscop's church at Monkwearmouth are the earliest known. They are still in position where his workmen placed them in the jambs of the western opening, standing two by two just beneath the imposts. Their general outline is straight, without entasis or taper, but they are girded about with delicate mouldings of most elaborate composition, that were evidently worked on the lathe. All the abundant barrel-shaped later baluster shafts about the country look coarse and common beside these achievements of the seventh-century craftsman. Whence he derived his skill and what were his technical appliances we cannot tell. That the Romans used the lathe for such small moulded shafts is proved by the marks on some existing examples at Chester and elsewhere, but the technique attracted so little attention in the ancient world that Dr. Blümner, in his elaborate *Technologie*, though he refers to the idea of turning architectural members, can give no passage that bears on it.* The skill of the Saxons in turning these baluster shafts is sometimes explained by their previous prac-

* *Technologie, etc., bei Griechen und Römern.* Leipzig, 1884, iii. 215.

tice in wood. This may have had something to do with it, but there seems to be no authority for ascribing to the Saxons any special *penchant* for working with the lathe.

This hypothesis of the influence in various branches of Saxon work of wood technique has been held to explain the third of the peculiarities we are here examining—the pilaster strip-work of Earl's Barton and other sites. This has been claimed as an imitation of the appearance of the squared beams in what are known as half-timber-built houses, so common in many parts of the country. In the first place, however, it has to be proved that the Saxons knew and practised framed timber-work of the kind; and in the next, there would need to be disproved the far more probable origin of the strip-work in a clumsy imitation of the surface arcading which early Christian architects borrowed from later classical art. With regard to the first point, of the three kinds of wooden building, that with wattle and clay, block-work, and frame-and-filling, we know that the Saxons practised the first two, but find no trace among them of the third. The only remaining Saxon timber church, at Greenstead, is constructed of block-work, with solid upright boles, formed of split oak trunks, placed upright side by side in the most primitive fashion conceivable. Exactly the same method of wood construction is to be seen in the palisades and timber strongholds on the earthen mounds or "burghs" depicted in the Bayeux tapestry. The scientific framed work of later mediæval days does not seem to have been used in the eleventh century. On the other hand, wall-arcading appears in an obviously Roman form all round the little church of Bradford-on-Avon. The shallow pilasters there possess what may pass for bases and capitals, and are joined above by round arches. The only difference between this work and what we see at Earl's Barton is that the latter is carried out in an ignorant and somewhat helpless manner. The use of the straight-sided arch for connecting the pilaster-strips, instead of the round arch, is simply a parallel to the use of this triangular heading for door and window openings. Timber tradition has nothing to do with it.

To sum up generally, therefore, we may say that in plan and general appearance Saxon churches took either the basilican and cruciform shape due to Italian tradition, or else the long, narrow form of the Celtic stone-built oratory. The smaller village churches would, probably, in all cases exhibit the latter plan, with an aisleless nave and small square-ended chancel; while it is reasonable to suppose that the aisles, transepts, and apse of the Continental styles would appear in more important structures, such as the great abbeys, that were in such close connection with Rome. That the Celtic feeling was, on the whole, predominant may be argued from the perpetuation of the square east-end in the later styles of English architecture. In the matter of features and details, with the exception of sloping jambs and an occasional megalithic feeling in huge flat lintels, all that we find here is in its origin Roman, though the Saxon builders had their own incoherent methods of expression, which, at first sight, makes us credit them with a special language of their own. Though they were accustomed by tradition to build with timber, they do not seem to have transferred timber forms to stone to the extent which might have been anticipated.

In the foregoing Paper no attempt has been made to cover more than a small part of the field of study opened up by the question of pre-Conquest Architecture. Only existing monuments have been taken into account, and among these only one or two examples of special interest have been singled out for notice, as presenting characteristic types of work of different kinds. The examples that have perished were in all probability more important than those which have survived.

In connection with what has been said in this Paper, it will have been remarked that, with the doubtful exception of Stow, which seems once to have held cathedral rank, none of the

buildings referred to have been important abbey or cathedral churches. Yet these were both numerous and imposing. All have, however, yielded place to later structures, and with the exception of foundations at Peterborough, and some small portions of above-ground masonry at Oxford, there is nothing now left of any Saxon church of the first rank. Literary records here come to our aid and enable us materially to supplement the evidence of existing remains. A complete study of pre-Conquest as of any other phase of architecture will take account of all that we can learn from documentary sources, as well as from the monuments. It is with the latter that we have exclusively been concerned; and in connection with these it may again be urged, in conclusion, that the Institute would be doing a most valuable service to the cause of architectural study if it could focus in some way the labours of isolated workers in different parts of the country, and bring together the results of so many scattered investigations. A small committee of those interested in the subject might put themselves in communication with the Secretaries and most active workers in the local Associations, and would be able soon to obtain some oversight of the whole mass of material available for reconstructing the first and not the least interesting chapter in the history of our national architecture. The subject is one not without a strong claim upon patriotic sentiment, as well as upon that interest in past phases of their art which has always been shown by the leading members of the architectural profession. We possess in this country no such "Central Commission for "the Investigation of Monuments" as that which has worked under Government for so many years in the Austrian Empire. What we do in these matters has to be accomplished without official aid. Happily, hitherto the zeal of individuals and the public spirit of Societies have never been wanting for the accomplishment of any work of real and recognised importance.

DISCUSSION OF PROFESSOR BALDWIN BROWN'S PAPER.

The President, Mr. F. C. Penrose, F.R.S., in the Chair.

The PRESIDENT.—Gentlemen, I am glad to think that many who have not had the pleasure of listening to the Professor's most lucid and beautifully enunciated account will read it. It has been extremely interesting to listen to. The way in which he has pointed out the connection between the history and architecture of that early period which we have generally neglected is especially interesting. I remember, in my first days of study, that it was thought that there was possibly some Saxon architecture in the country, but it was very doubtful indeed. Lately much more light has been thrown upon it. Whether the Institute will be able to carry out the ideas which Professor Baldwin Brown has foreshadowed I do not venture to say; but I would offer to our Allied Societies the opportunity of sending us reports of any Saxon or supposed Saxon works in their respective neighbourhoods.

Mr. T. M. RICKMAN [*A.*], F.S.A.—Mr. President and Gentlemen, all of us who have sketched and wandered about this country have within the last few years seen more of and taken more interest in the so-called Saxon churches than was formerly the case; and, so far as I know, the lecture which we have this evening heard calls attention to these special influences which have come to the front within these last few years in the consideration of these Saxon buildings: I mean the Celtic influence, the influence of the Irish style; the influence of the Roman style, and especially the use of the old materials which the Romans left. An hour spent in the crypt at Hexham watching every single stone carved or inscribed with Roman work has made me think that there was in that district a vast mass of ancient material which had been used by the Romans. The Ripon crypt is built in the same way, and I suppose there is very little doubt that a number of churches in Yorkshire and in the North generally have certain portions of their masonry which can be traced to Roman work. The remark that the lecturer made on the subject of squared stones being available from the Roman work, and as to the habit of the Romans of using stones of a certain regular size, I think, points to what we may expect to see and what we ought to look out for most carefully in all the very ancient buildings which we have to do with. I was somewhat surprised that Professor Baldwin Brown did not refer to one important Scottish building—the tower of St. Regulus at St. Andrews—one of the most interesting of its kind. The little chapel attached to that building seems to be the most like the Roman masonry

work of anything that I have seen in this country. I would have confined myself almost to the moving of a vote of thanks to Professor Baldwin Brown had not my father's name been mentioned in the way in which it has, and I have to thank the lecturer personally for the way he has reminded us of what my father did. I have been pressed to put together what I can of my father's professional work, and a remark has been made by Professor Baldwin Brown as to the curiously detailed order of his treatment of the Styles which recalls to my mind a conclusion I arrived at after reading through forty years of my father's diary; that is, that he was naturally a born accountant, a bookkeeper, and to a certain extent he treated the subject of Gothic work as a branch of bookkeeping. Every church that he examined he noted in the most careful manner. I have folio volumes in which he has numbered every church he had seen, and there are also certain marks and indications in the columns attached to these volumes describing what would be the scale of the building, or rather its component parts, and its date and all the different points of interest. They are kept like a series of office books. But of late, within the last few months, there has occurred to me what is a far better illustration of my father's work in Gothic architecture. We know that the agriculturists of Australia have been trying to grow red clover. The red clover would not grow because there were no bumble bees. Bumble bees have been imported over there, and now the red clover grows. My father was a bumble bee who sipped the sweets of Gothic architecture, and produced the honey of his book, and I think there is to be seen in the gradually increasing and greatly increased practice of Gothic architecture, after the centuries during which it was unintelligible to mankind, a proof that my father's work has impregnated the red clover of Gothic architecture.

MR. WILLIAM WHITE [*F.*], F.S.A.—Sir, I shall be most happy if allowed to second the vote. Mr. Rickman has spoken most modestly and justly of his father's work in connection with the first revival of that architecture which has undergone so great a development. Professor Baldwin Brown has said that the revival of that ancient architecture is more an historical than a practical subject. But the historical record of all that which he has brought before us is a great help, not only to the subject itself, but also in connection with the Roman and Norman periods. There are, as he has seemed to imply would be the case, numberless instances throughout the country of little scraps of building which could hardly be associated either with the Roman or with the Norman period—the post-Conquest portion of history. But there is one special subject now in which his learning might be brought to bear with some further results—I mean in connection with the history of the discoveries which have recently been made in the chancel of Durham. Canon Greenwell seems to insist upon the remains of the apse not being of the early church, but of the later one—not the church of Aldhune, but of Carileph. I cannot help thinking that they belong to the earlier church. The argument which he brings forward, as a simple and most convincing one, is that it is not at all likely he would have pulled down Aldhune's church until his own were finished for use. I should like to base its history more upon architectural evidence. We know perfectly well that in Norman times they paid very little attention to foundations. We know that Bishop Pudsey built upon an insecure foundation for the Lady Chapel at the east end of the Cathedral; and we know that on this account he actually took the building down, and transferred it to the west end, where he had a good foundation. And I think that most probably Carileph's also was built upon an insecure foundation, for it is said that it fell to pieces. There is very good reason, therefore, for supposing the foundation was bad. And we may conclude safely that the earlier church was built upon a good and sufficient foundation, it having stood for so many centuries before it was rebuilt. Carileph rebuilt it for the sake of magnifying the building as a larger and handsomer shrine. I cannot help thinking that Aldhune was really the builder of the apse—and more especially from its form, which was rounded within, but square outside. Moreover, as Carileph's building was falling to pieces from want of a deep foundation, it is the more likely that the whole of Carileph's work was removed when the present end was built. I hope somebody here may be able to throw a little more light upon the subject.

MR. R. PHENÉ SPIERS [*F.*], F.S.A.—The very interesting Paper which Professor Baldwin Brown has just read forms part of a wider subject which has of late been occupying the attention of many archæologists not only in England but throughout Europe—viz. the respective influence of the debased Roman and the Byzantine styles on the architecture of the Dark Ages from the sixth to the eleventh century. I was in hopes this evening that we should have had here some of the members of that German Society who have come over this week to see our more important buildings, for they might, perhaps, have been interested in the subject. There are many very ancient buildings of their own country practically unillustrated, works of an early period, and of a similar nature in some respects to those which Professor Baldwin Brown has been describing. I might note among others the works which Charlemagne erected, some of them described as having been attempts to build "after the Roman manner" in the same way that the Saxon masons endeavoured to carry out the work in this country. I think from

the description which Professor Baldwin Brown has given that we should all be inclined to agree with him that the Saxon style, as a matter of fact, is not a style at all, but is simply an attempt, and a clumsy attempt, to carry out, from the description of monks and others who came over here, features of buildings which existed in Italy. As to the baluster and other decorative forms, I am glad to see that Professor Baldwin Brown takes what I think is the proper view, and at once discredits all attempts to attribute it to an imitation of timber construction. He points out that they are really an attempt to copy as far as possible the arcaded wall decorations of the Italians. He has pointed out that there are two classes of plan—that which owes its origin to Celtic sources, of the early British Church, and that which was probably introduced by the Roman missionaries. The features which belong to the former are the square east end found at Bradford-on-Avon and at Dover, which is peculiarly a national form, found but rarely abroad. It is a singular fact that although apses were introduced continually at various periods by the Roman missionaries, and after the Norman Conquest are to be found at the east end of almost all our great cathedral churches built by the Normans, notwithstanding, the English returned again to their own favourite square east end, and developed it, and formed features in it of special beauty. There is also the single west tower, which is again another English characteristic which we find in so many of those Saxon churches. Another feature is the central tower, which is invariably found in our earlier churches. From the Roman missionaries we have the Basilica plan and the apse. We have also the confessional crypt at Brixworth and at Ripon. Professor Baldwin Brown has explained that his Paper is only a part of the subject he hoped to bring forward. In the hopes that he will again return to it, I would venture to call his attention to an influence not mentioned by him, but which, I think, may possibly have extended to some of these buildings, viz. the Byzantine influence. It is a significant fact that two of these churches—the church at Brixworth and the church at Wing—have both got polygonal apses, a form of apse which is, as a rule, only to be found in Byzantine work. All the churches in Byzantium, with two or three exceptions, have polygonal apses, and wherever the influence of Byzantine architecture has been felt in Europe there you will find the polygonal apse. It reigns supreme in Ravenna, which was a centre of Byzantine tradition, and is found there in Sant' Apollinare in Classe, Sant' Apollinare Nuovo, San Spirito, Sant' Agata, and San Vitale. The polygonal apse is found at Grado and Parenzo in Dalmatia, at St. Mark's in Venice, Santa Fosca at Torcello, and in Murano. In the south of France we find it in two churches, where there has been strong Byzantine influence. I do not know any examples of it in Germany. In both these English examples—at Wing and at Brixworth—there are polygonal apses, and the plan of the apse and crypt at Wing is not dissimilar from that of the church at Sant' Apollinare in Classe with its confessional crypt. There is also other Byzantine work to be noticed, but, curiously enough, it never seems to appear in churches, viz. the elaborate carving of that peculiar type of interlaced work which we find throughout all Byzantium and in all those countries where Byzantine influence has penetrated. It is chiefly to be found on tombs in Scotland and the north of England, and consists of such fine and beautiful work that it would seem to have been impossible to have been done by Saxon carvers. An obelisk tomb at Bewcastle, in Cumberland, shows an example of it. The date of the tomb, erected in memory of Alfred, King of Northumbria, is towards the end of the seventh century—about the year 690. Anyone who looks at the drawing will see that the detail of it is particularly fine in character, and quite unlike the very uncouth and hideous forms of ornamentation which we find in Saxon architecture. There is one part of the Professor's Paper I did not quite follow. He says: "We discern in a "great number of cases a pronounced though "clumsy copying of Roman features; while in "other cases there is an approximation to the "regular Romanesque forms which were becoming "established in the different European centres "during the eleventh century." I suppose the most beautiful example we can find is at Bradford-on-Avon, and I think the Professor puts that down to the eighth century. I should like to ask him whether he can suggest the type of building from which that was copied. There are plenty of churches in the eleventh century from which such features could have been taken, but it is of earlier date. We know there are earlier buildings at Lucca which may have served as models, but I am not quite certain whether they have been altered or rebuilt; the earlier work in Rome in one or two churches where wall-arcading is found is of too simple a character to have been copied. Those at Ravenna are also of the simplest kind, and have not the base and the capital and the regular arcading of Bradford-on-Avon. As regards the long-and-short work, I have sought for it abroad, and have never been able to find anything of the same description. Professor Baldwin Brown has suggested that the name "long-and-short" is hardly accurate, for the stones are the same length laid different ways. This, however, is not quite the case, because the courses consist alternately of vertical blocks of stone about ten inches square and two feet six inches high, and horizontal blocks two feet six inches square, and about twelve inches high, the further peculiarity being that they are both of them in relief, that is to say, they project in

front of the wall face of the tower about an inch and a half. It has been suggested by Mr. Scott that they are an attempted imitation of the Italian pilaster and its bonding into the wall, and that in fact the quoin of Earl's Barton is really a projecting pilaster strip. In that case one does not see why the horizontal bonding course should project throughout, and so upset the idea of its being a pilaster. Professor Baldwin Brown has said that St. Benet's Church in Cambridge had the surface of the wall plastered over. Of course if the tower at Earl's Barton were plastered over the result would be to lose all the value of the other pilaster strips decorating the wall surface. There is one other feature which has not been mentioned, and which, I think, we may also trace to Saxon sources, and that is the magnificent circular piers which we find at Christ Church, Oxford, and at Waltham Abbey. Both of these are said to be of pre-Conquest times, the latter built by Harold. Later on the same form is found at Gloucester, Durham, Tewkesbury, and other places. These circular piers are a distinctly British feature which are found but rarely abroad, and one which you may attribute to the influence of Celtic times.

MR. JOHN SLATER [*F.*], B.A.—Sir, I do not know that I have ever listened to a more suggestive Paper than the one we have just heard, or one opening up a more interesting field of study to us in England. I was particularly struck with what was pointed out as to the immense antiquity of the village life of this country. One cannot help noticing in some of these small village churches how the cruciform shape does not really exist at all. A month ago I was taking a walk in the country and came upon one church from which it was perfectly evident that the nave and chancel were really the remains of an old Saxon church which had had the nave wall cut away in order to make the aisles, but there was no cruciform appearance in it at all. With regard to what Mr. Spiers has said as to there being no polygonal apse in churches in Germany, unless I am very much mistaken (I will not be quite sure), the little ruined Abbey of Heisterbach, near Königswinter, has a polygonal apse.

PROFESSOR G. BALDWIN BROWN [*H.A.*], briefly responding to the vote of thanks, said he had listened with great interest to the personal reminiscences of Mr. Thomas Rickman's manner of work from one who had the best possible ground for speaking on that subject. He never read Mr. Rickman's book without fresh wonder at the diligence and the amount of travelling he managed to get through in days when it was not so easy to get about the country as it was at the present day. His book, published as long ago as 1813, had up to the present time never been superseded, although there had been different editions published. It was the text-book, and had remained the text-book, of English architecture to this day.

9, CONDUIT STREET, LONDON, W., 23 *May* 1895.

CHRONICLE.

BUILDING CONTRACTS.

The Institute Heads of Conditions, Clauses 18 and 20, and the Court of Appeal.

The recent case of Lloyd Brothers, builders, of Swansea, against a Mr. Milward is one of peculiar interest at the present moment; and the Institute is much indebted to Messrs. Collins & Woods, of Swansea, the plaintiffs' solicitors, for the particulars printed at pp. 522–23. The question at issue between the parties had reference to the construction of Clauses 20 and 22 of a Form of Building Contract approved and issued by the National Association of Master-Builders, Liverpool, which clauses are practically identical with Clauses 18 and 20 of the Institute "Heads of Conditions," now, by the Resolution of the Special General Meeting held 13th inst. [p. 521], to be superseded; and also with the same two clauses of the "General "Conditions for Building Contracts" adopted by the Central Association of Master-Builders of London.

Mr. Justice Lawrance, it will be seen, gave judgment for the plaintiffs, holding that the architect's certificate, having been given in good faith, was final and conclusive. Upon appeal, the Court of Appeal reversed this decision, basing its judgment on the ground that when once a dispute has arisen, of which the parties and the architect are aware, although there has been no claim for arbitration, the architect's authority to give a final certificate has determined.

Visit of German Architects and Engineers.

The apology made by the President, on behalf of the Council, for their arrival at the General Meeting of the 20th inst. a quarter of an hour late, gave an opportunity of announcing that about fifty of their German colleagues were in London for a week's visit, and that the Council had had the honour of receiving a small contingent of the number at the dinner usually held at Limmers' during the short time which intervenes between the termination of a Council Meeting and the assembling of a General Meeting. The visitors are all members of the Association of

Architects and Engineers of Rhenish Prussia and Westphalia, its headquarters being situate in Cologne. They brought with them, as a present to the Institute, a copy of the work *Köln und seine Bauten*, prepared by the Association in 1888, and also a copy of their *Cölner Thorburgen und Befestigungen* 1180–1882. Both works were handed to Mr. Penrose, at the close of the dinner, by the Vice-President, Herr Siepen, who addressed the company both in German and English. By a purely accidental coincidence a review of *Strassburg und seine Bauten*, the work of the Association of Architects and Engineers of Alsace-Lorraine, appears on this page; and it may be seen from the description given of it by Mr. Arthur Cates that the book is of exceptional interest and value. The labours of the architects and engineers of Cologne and its neighbourhood, as shown in the books they have presented, are certainly not less important. The Allied Societies of Manchester and Liverpool, of Leeds and Birmingham, not to mention smaller communities, will be deeply interested in what similar local Societies have been able to do for Cologne and Strassburg, and wonder, perhaps, why they have not already, in their respective localities, rendered a like service to Architecture and architects.

The German Edition of Vitruvius, 1796.

Professor Aitchison's appeal for the editions of Vitruvius wanting in the Library [pp. 321–23] has been most kindly and generously responded to by the distinguished savant, Baron Albert von Le Coq, of Darmstadt, who has presented August Rode's German translation in two volumes quarto, published at Leipzig in 1796—a choice specimen of typography in Roman text. This edition, it is interesting to note, was published by George Joachim Goschen, whose firm at that time was of nearly a hundred years' standing, and one of whose descendants is the eminent statesman of our own country, the Chancellor of the Exchequer in Lord Salisbury's late Government. Baron Le Coq has also presented Part I. —the only Part published—of Dr. C. Lorentzen's edition, Latin and German on facing pages, 8o. Gotha, 1857. Only five editions are now required to complete the Institute collection of all the known editions. These are the small folio Latin edition published at Venice in 1497; the *Editio Princeps*, Latin and Polish, 2 vols., 1837; *Les dix livres d'Architecture*, new edition, with atlas, 2 vols., 4o., Paris, 1859; and the *Editio Princeps* in English, London, 1771 and 1860.

Recent Papers on Hospitals.

The Lancet of the 11th inst. has an article by its "Special Sanitary Commission" on the Ventilation of Hospitals and the Treatment of Infected Air, with special reference to the General Hospital now in course of erection at Birmingham. Mr. William Henman [*F.*], the architect of the new building, read an excellent Paper on the general subject of Hospitals before the Leeds and Yorkshire Society in April of last year [see JOURNAL, Vol. I., Third Series, p. 439], and many of the points he raised have been treated favourably by *The Lancet*. In the same issue of that journal there is also a leading article in which special attention is directed to the Paper on "Fever "Hospitals," read before the Institute on the 28th February by Mr. T. W. Aldwinckle [*F.*], and printed in full at p. 265, with the discussion thereon; and *The Lancet* thinks that the subject was then thoroughly debated and considered.

The Architectural Association Sketch-book.

Mr. Edgar H. Selby [*A.*] fears that the reference made on the 9th inst. [p. 453] to the completion of the "New Series" of the *Sketch-book* of the Architectural Association may lead some to suppose that the work is terminated. On the contrary, a "Third Series," of which Mr. Selby is Hon. Secretary, is going on; and the first six parts of its first volume have already appeared.

REVIEWS. XXVI.

(74.)

STRASSBURG AND ITS BUILDINGS.

Strassburg und seine Bauten. Herausgegeben vom Architekten- und Ingenieur-Verein für Elsass-Lothringen. Mit 655 Abbildungen im Text, 11 Tafeln und einem Plan der Stadt Strassburg. Large 8o. Strassburg, 1894. Verlag von Karl J. Trübner, Strassburg.

The collaboration of some twenty-two contributors has resulted in the production of the handsome and useful volume whose title heads this notice, comprising nearly 700 pages, with 655 illustrations in the text, 11 plates, a large plan of the city, and a good index. The book is the latest of a series illustrative of German cities, from time to time produced by the local Architectural Societies, among which may be mentioned *Berlin und seine Bauten*, 1877; Dresden: *Die Bauten, technischen und industriellen Anlagen von Dresden*, 1878; *Köln* und seine Bauten*, 1888; *Leipzig und seine Bauten*, 1892; and Vienna: *Technischer Führer durch Wien*, 1874—all deserving of the notice of the English architect who may care to make himself acquainted with the progress of other countries.

As an introduction the situation, geology, and climate are exhaustively treated, and admirably illustrated by geological plans and sections of great interest in connection with the Rhine, its diluvium and alluvium.

The history of the city is followed out from the Roman Argentoratum to the memorable siege and capitulation in 1870, by which it was reunited to the German Empire, 189 years after its capture

* See this and the preceding pages: Visit of German Architects and Engineers.

by the French; its cession to France having been confirmed in 1697 by the peace of Ryswick.

Lamentable as was the destruction caused during the siege—the repair of the damage to the Cathedral having occupied ten years—in the result new life has been given to the city. The extension of the lines of circumvallation have since then doubled the area available for the city, and provided space for the new private and public buildings, the detailed descriptions of which give so much value to this volume.

The minster, the churches, the ancient and Renaissance domestic buildings are fully described and illustrated; but the special interest of the book is centred in the section devoted to New Strassburg, which occupies nearly one half of the work and describes the buildings which add fresh grace and beauty to the "wondrously beautiful "city"—"*wunderschöne Stadt*"—of olden time.

The Kaiser Platz, to the north-east of the Broglie Platz, is designed to form the centre around which the great public buildings of the new city should be grouped. The Emperor's Palace, erected at a cost exceeding £140,000, occupies the entire north-west side, and faces the great college building of the University, which, with a north façade 400 feet long, closes the long vista from the Palace across the Kaiser Platz, along the 100-feet-wide Kaiser Wilhelm Strasse, over the stately University bridge which spans the junction of the rivers Ill and Aar, and then across the Universitäts Platz to the striking group of University Buildings.

On the opposite side of the Kaiser Platz, on either side of the Kaiser Wilhelm Strasse, as first instalments of the public buildings to be grouped around the Palace, two beautiful buildings have been erected—one for the University and Provincial Library, the other for the Provincial Assembly or House of Representatives.

The Library takes the place of the ancient and valuable library of 350,000 volumes and 2,400 MSS. destroyed in the siege. The liberality of the German Government and of other nations and public bodies made good the loss so fully that in 1886 the new Library consisted of 610,000 volumes and 4,000 manuscripts, and the new building provides space for 1,400,000 volumes and opportunity for extension when needed.

The House of Representatives, although of perfectly harmonious design with the preceding, does not repeat the elevation of the Library, but preserves its own individuality; and each building standing entirely detached, with streets on every side, each elevation is considered and carried out as completely as the front.

These buildings were erected from the designs of Messrs. Hartel & Neckelmann, and on the death of the former have been carried out by Professor Neckelmann. The beauty and harmony of the design, the excellence of the execution, the mastery of refined detail, evinced in every part, bear testimony to the profound study and thorough education in details which alone could produce so satisfactory a result. When looking at these buildings the unavoidable admiration for such excellent works must, for an Englishman, be sadly tempered by the humiliating remembrance of the vast difference between those buildings erected in a foreign provincial city within twenty-five years of a destructive siege, and the latest specimen of official architecture, or rather of architecture by Select Committee of the House of Commons, which, after a period of incubation of about the same period, has been reared facing the St. James's Park Parade as a permanent evidence of the indifference to architecture which so often characterises the conduct of Government buildings in this country.

The splendid aggregation of buildings for the University is arranged in two lines of isolated edifices behind the great central college building, the Chemical, Physical, Botanical, Geological, Mineralogical, and Zoological Institutes, with the Astronomical Institute and Observatory at the end, being placed in gardens and with spacious open surroundings. The Medical Section of the University is also provided with an admirable series of buildings grouped at the Spital Thor to the south of the Great Municipal Hospital, and housing, in isolated blocks, the Institutes of Experimental Physiology, of Anatomy and Pathology, of Psychiatry, of Physiological Chemistry, of Gynæcology, of Pharmacology, of Surgery, and of Ophthalmology.

Of all these buildings, as also of the principal churches, the Great Central Railway Station, the bridges, abattoirs, and other public and private buildings and modern residences, excellent plans, elevations, and sections are given.

The expenditure on the new buildings has been great, and particulars are given of the cost of each. The four great churches—die Neue Kirche, die Neue Jung St. Peter (Herz Jesu) Kirche, die Katholische Garnison-Kirche, die Evangelische Garnison-Kirche—cost some £185,000. The Palace, House of Representatives, Library, University, Medical School, and Railway Offices cost over £1,000,000. The restoration of the Prefecture and other public buildings destroyed in the siege—new churches, schools, barracks, abattoirs, markets, bridges, water-supply, town and street improvements, and municipal works have consumed nearly £900,000. Thus, between 1871 and 1894, the expenditure on these specified public buildings, which do not include the vast Central Railway Station and many other works, has exceeded two million pounds sterling, and is still going on, the projects for new public offices such as Post Office, Law Courts, Record Office, Ministerial Offices, &c., being still in progress. It is well to note that the population of Strassburg is about 125,000—less than that of many London parishes, as St. Marylebone, St. Pancras, &c.

This book on New Strassburg deserves careful study by all interested in the advancement of urban development in England, and conveys an admirable lesson of the nation's gain by the intelligent co-operation of the State and the Municipality in carrying out public works uninfluenced by the dictates of wasteful economy.

The whole volume is replete with information admirably conveyed, which may well form subject of careful study to every architect. To our brethren of Elsass-Lothringen the thanks and acknowledgments of our own body are certainly due for having produced so excellent and valuable a work, which, if rightly studied here, should much influence the manner in which public works may hereafter be dealt with, and help to qualify the narrow views by which so many good aspirations have been cramped and rendered in execution futile or ridiculous. There being two copies in our Library—one in the Reference Library, presented by the Architekten- und Ingenieur-Verein für Elsass-Lothringen, and one in the Loan Library, presented by the writer of this notice—it will be easy of access to the student; but to those students whose resources would not be unduly affected by the expenditure of the very moderate price* at which it can be obtained, I strongly recommend its acquisition for the careful study which its merits deserve. ARTHUR CATES.

(75.)

STATICS AND DYNAMICS.

Mechanics: An Elementary Text-book, Theoretical and Practical, for Colleges and Schools. By R. T. Glazebrook, M.A., F.R.S., Assistant Director of the Cavendish Laboratory, Fellow of Trinity College, Cambridge. Statics, price 3s. *Dynamics, price* 4s. *Fcp.* 8*o. Cambridge,* 1895. *[The University Press, Cambridge.]*

The latest addition to the Physical Series of the Cambridge Natural Science Manuals consists of two little volumes by the Assistant Director of the Cavendish Laboratory, devoted respectively to Statics and Dynamics.

Many good elementary treatises upon these subjects are already in existence—so many, indeed, that at first sight it would appear that there was hardly room for another. Mr. Glazebrook, however, justifies his undertaking by claiming to treat the subject in what, though really the oldest, is yet a novel manner. "Mechanics," he says, "is "too often taught as a branch of pure mathe- "matics"; and he proposes to "follow the track "of the founders of mechanics" by examining the behaviour of bodies in certain simple cases, and endeavouring to deduce the mechanical laws to which the bodies are subject from the result of these observations. In short, he considers that mechanics should be placed on the same footing as chemistry and other natural sciences, which, as has always been recognised, cannot be properly studied except by means of numerous and careful experiments, performed by the student himself.

It is a little disappointing to find that, notwithstanding the excellent principle thus laid down, the collection of experiments prescribed in this treatise is very meagre. In the course of the volume devoted to statics—which, exclusive of preface, answers to examples, and index, comprises 176 pages—only eleven experiments are suggested; an average of one to sixteen pages. In the "Dynamics," the text of which covers 242 pages, there are twenty-nine, or, roughly speaking, one to eight or nine pages. Even of this small number the performance of several would probably be beyond the capability of many "colleges and schools," owing to the inaccessibility of the special apparatus necessary. For what proportion of the institutions in which mechanical science is studied has even Atwood's machine more than a theoretical existence? The devising of mechanical experiments to be performed with inexpensive or easily constructed apparatus is no doubt difficult, but should not be impossible. Mr. Glazebrook would greatly enhance the value of his work by embodying a larger number of such experiments in the second edition of both volumes of his work.

The author's name is alone sufficient to indicate the high character of the work as a whole. There is not much originality of treatment, if we except the experimental basis upon which it is professedly founded; but it would scarcely be possible to introduce originality into an elementary treatise, of a size so compact as that of these volumes, upon such a well-worn subject as elementary mechanics. The work is, however, distinguished by great lucidity of demonstration and general expression; by abundance of explanatory diagrams; and, above all, by a large collection of useful illustrative examples. Answers to these examples, and a good index, are provided in both volumes.

The general appearance of the work is of the tasteful character which marks the work of the Cambridge University Press; and the type, though small, is remarkably clear and legible.

R. A. S. MACALISTER.

(76.)

THE ZIMBABWE RUINS.

The Ruined Cities of Mashonaland: Being a Record of Excavation and Exploration in 1891. *By J. Theodore Bent, F.S.A., F.R.G.S. With a Chapter on the Orientation and Mensuration of the Temples, by R. M. W. Swan. New edition.* 8*o. Lond.* 1895. *Price* 3*s.* 6*d. [Messrs. Longmans, Green & Co., Paternoster Row, London.*

There exists at Kai-fêng-fû, in Honan, the very centre of China, a Jewish colony that has been there

* The publisher in forwarding the book states that members of the Institute, by applying direct to the "Archi- "tekten- und Ingenieur-Verein für Elsass-Lothringen," will be supplied with copies in paper covers at the price of 16 marks (16*s.*) a copy; bound in cloth, 18 marks; half-bound, 19 marks, the ordinary selling prices being 20 marks, 22 marks, and 23 marks. This offer will remain open up to the 1st August 1895.

such a length of time that its members do not know where they came from, or when their particular exodus occurred. A similar mystery surrounds the builders of the ruined cities of Mashonaland. The structures which Mr. Bent saw, and has so well described, could not have been raised by such tribes as those existing now in the centre of Africa. Some foreign race must have penetrated the country, and built strongholds for themselves of a character that indicate, not a transient occupation, but a settled community, which there is every reason to believe, inhabited the region for a considerable period of time; and at last, from some cause or another, finally disappeared. Who these people were, and the date of their occupation, is the problem that has yet to be worked out. Some points connected with them may be assumed. The attraction that brought them into that part of Africa was in all probability the gold deposits, which are still an influence, as we see at the present day, when another foreign population is again forming permanent settlements on the very same ground. The old mines, some of them reaching far into the earth, made by these early settlers have been discovered; remains of furnaces, crucibles, and moulds for ingots were found by Mr. Bent, thus leaving scarcely a doubt as to the business that engaged these people. Who they were is not so evident. Arabia is, from its geographical position, the most likely country to have sent explorers. The Phœnicians sent to Britain for tin, and they may have sent to Africa for gold. The Egyptian Pharaohs, as early as the third and fourth dynasties, carried on mining operations in the Sinaitic Peninsula; and gold came to Egypt from the land of Punt, a rather mysterious country, which may or may not have been in the middle of Africa. That it was the gold-producing land of Ophir will naturally occur to most minds; and almost the only point certain about that land is that it lay in the south, and was reached by way of the Red Sea.

There is ample enough scope here for speculation, but as yet the material on which anything like a safe conclusion can be based does not appear to have been found. Except one fragment of stone, which has marks upon it that may perhaps be letters, no inscriptions have as yet turned up. There are only walls and circular towers, with some peculiarities of building upon them, a few fragments of sculpture, and a number of objects which only suggest that the people who produced them were devoted to some of the primitive forms of Nature worship. Mr. Bent's time limited him to the exploration of the remains at Zimbabwe and one or two other places of minor importance; but he reports the existence of many other places of a similar character; and as these sooner or later are certain to find explorers, evidence of a more certain kind may perhaps yet be brought to light.

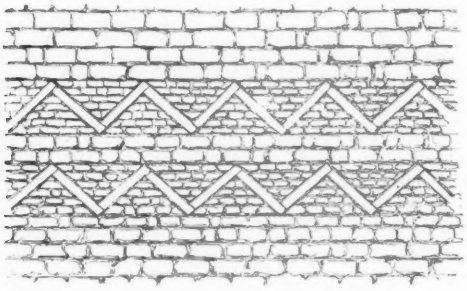
The first account of these remains in Mashonaland came to me some years ago from the Rev. John Mackenzie, who was Dr. Moffat's successor at Kuruman, in Bechuanaland. He was about to publish a book,* and he was anxious for some information about the "towers of refuge" I had seen in Persia and Central Asia, of which I supplied him with sketches. Mr. Mackenzie had not seen the ruins, but he gave such descriptions of them as existed at the time; and his conclusions were that they had served a purpose similar to the towers of refuge, and were thus identical in their object with the Round Towers of Ireland† and the Brochs of Scotland.

This supposition suggested that their builders were little more than temporary visitors, who had come for the gold, and merely required places of safety from the wild tribes around them. Mr. Bent, as the result of his labours, it will be noticed, dignifies the remains with the title of "cities," and from his description conveys the idea that there was a permanent occupation which must have continued for a considerable extent of time. The principal ruin at Zimbabwe is described as a combination of fortress and temple, and this character appears to be given to the other ruins scattered over the space between the Zambesi and Limpopo Rivers. The houses of the people were not inside of these, but are supposed to have been scattered about outside, and were probably only bee-hive mud huts. This explanation would, in a sense, still bear out Mr. Mackenzie's theory, for, as a fort, it would be the place of refuge in case of any attack. The large ruin is an irregular oval about 280 ft. in its longest dimension, and about 240 ft. in its widest breadth. The wall that encloses this space is 35 ft. at its highest point; but it varies considerably, and in places it is as low as 15 ft. The greatest base thickness is 16 ft. 2 in., and its thinnest is about 5 ft. The material is granite, which has been trimmed into small pieces, somewhat larger than bricks, and laid without mortar. This account implies a very substantial wall, and of a defensive character far beyond what might be supposed necessary among such rude tribes. The only decorative features upon it, if the term may be so applied, is that of two rows, near the top, producing a sort of frieze, of stones so placed as to form a herring-bone pattern. In the other ruins this feature is also found, with slight variations in the arrangement of the stones. It is a pattern not uncommon in brick buildings, and it is suggested from this, as well as from the size of the stones of which the wall is constructed, that the builders had been previously accustomed to the use of bricks. This ornamentation appears only on parts of the wall, and is connected, ac-

* *Austral Africa*, by John Mackenzie, 1887.

† See a Paper by the late Gordon M. Hills, "A Review of the Architecture and History of the Round Towers of Ireland," TRANSACTIONS, 1857–58, p. 66.

cording to Mr. Swan's explanations, with the orientation of the structure as a temple. It may be added that where this pattern appears the



PATTERN ON LARGE CIRCULAR RUIN AT ZIMBABWE (p. 109).

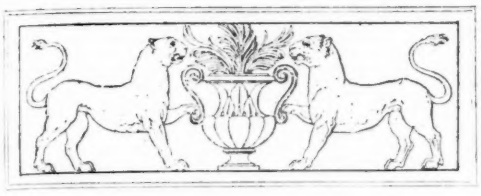
wall is wider and higher—so much so that it contrasts in a marked way with the wall in other parts. Inside of the eastern part of the wall there is an internal wall, running parallel to the other for about 200 ft., leaving a narrow passage, "so narrow in parts that two people cannot walk "abreast." The object of this passage is difficult to guess. It commences at one of the entrances to the enclosure, and might be supposed to have a defensive purpose; but there are two other entrances, and they have no such arrangement. The other walls within the enclosure are curiously irregular, and no purpose has been suggested for them beyond the supposition that one or two points relate to the supposed theory of orientation.

Within the enclosure, and close to the enclosing wall, are two circular, conical towers. The larger one is estimated to have been originally 35 ft. in height; the smaller one is about one-third of the size of the larger tower. These are both solid, and by digging at the base Mr. Bent found that they were not erected upon anything; there was only the solid ground beneath them. Here is a puzzle, to explain their meaning. Mr. Bent refers to an ancient coin of Byblos, in which a Phœnician temple is represented with a similar conical tower within an enclosure. A drawing of the old coin is given, and the resemblance between the two towers is certainly great; but whether we should conclude that both were the work of Phœnicians, and that consequently they were the people who worked the gold mines in Mashonaland, it might as yet be rash to affirm.

Close to this great ruin is a hill which Mr. Bent dignifies with the name of "Acropolis." There are upon it a large number of gigantic granite boulders; and an intricate series of walls has been constructed among them as if, apparently, for defence. On the western side, which is more open and free from boulders, there is another great wall, about 140 ft. long, similar to the one in the ruin below. This wall has also patches of the "herring-bone" pattern upon it, which, according to Mr. Swan, is connected, at this particular point, with the orientation in relation to the setting sun. It is in parts 30 ft. high and 13 ft. wide on the summit, where there still remain portions of round towers, about 3 ft. in diameter. These alternate with tall monoliths, the purpose of which presents another profound riddle to the explorer. It should be mentioned that there are monoliths also standing on the top of the great wall below. The walls themselves, it is natural to suppose, were primarily for defence; but it would be difficult to explain how these small towers and monoliths could be utilised for the same object.

This brings us to the subject of Orientation, which is dealt with in Chapter V. by Mr. Swan. This can only be touched upon here in the briefest form, and merely to indicate the theories advanced in the book. It has already been mentioned that the herring-bone ornamentation is found only on parts of the walls. According to Mr. Swan, they were placed only on those portions that had a reference to the orientation, and this was a system of determining the seasons or of supplying a kalendar for the year by means of solar observation. In clearing out the interior of the ruin an erection was come upon which is supposed to have been an altar. This is assumed to have been the point of observation, and the conical towers and monoliths served as gnomons; by these means the solstices and equinoxes could be fixed, so that the seasons and yearly functions would be by this simple process arranged to come at their proper times. This is the same theory that appears now to be adopted regarding Stonehenge, where, by standing on the altar stone, on the morning of the longest day, the sun, just as its lower edge reaches the horizon, appears to be perched for a second or so on the top of a pointed, detached stone, now known as "the pointer." If the year was counted from the day this took place, it never could be far out, and it was near enough for all the purposes that were required in early times.

This theory of orientation, as well as the various speculations regarding the ruins in Mashonaland, should be looked upon for the present as only tentative. Further exploration is required in order to clear up the puzzling matters which Mr. Bent's book places before us. He says himself in relation to them: "A thousand questions occur "to one which one longs in vain to answer." At present they are a mystery—quite as great and interesting as any novel that has been written about Central Africa; and although Mr. Bent gives us a large contribution of data, still more is wanted. While mystery or uncertainty exists, explorers will be attracted to these ruins; and the necessary knowledge, it is to be hoped, will yet be found which can be the only means of providing a trustworthy solution. WM. SIMPSON.



BUILDING CONTRACTS.*

RESUMED DISCUSSION OF THE REVISED PAPER AT THE ADJOURNED SPECIAL GENERAL MEETING HELD 13TH MAY 1895.

Mr. ASTON WEBB, *Vice-President*, in the Chair.

THE CHAIRMAN reminded the Meeting that at the last Meeting an amendment had been proposed by Mr. Hine [p. 470], and seconded by Professor Roger Smith, that the Form of Agreement and Schedule should be referred back to the Council; and that the adjournment of the debate had been moved by the Honorary Secretary, Mr. Emerson, whom he would now call upon.

THE HON. SECRETARY said that the Allied Societies and members generally had had the opportunity of expressing their views upon the revised Paper. The Council had received communications on the subject from the Allied Societies at Sheffield, Leicester, Manchester, Glasgow, Newcastle, Bristol, Nottingham, Dublin, Birmingham, Leeds, Exeter, Dundee, York, and Cardiff. Communications had also been received from Messrs. R. Williams [*A.*], Frank Fox [*A.*], E. Gregg [*F.*], L. Solomon [*F.*], T. Worthington [*F.*], G. H. Fellowes Prynne [*F.*], C. H. Brodie [*A.*], C. Stanley Peach [*F.*], J. Osborne Smith [*F.*], Walter Herring [*A.*], and Professor T. Roger Smith [*F.*]. The Council had carefully considered the various proposals, and it rested with the Meeting to decide whether they should be read before proceeding with the discussion. As a matter of fact no question of principle had been proposed to be altered; most of the suggestions had reference to minor details, which, with the permission of the Meeting, might be incorporated if thought fit.

MR. WILLIAM WOODWARD [*A.*] thought they could scarcely agree to the incorporation of words in the new Conditions without knowing what those words were. If it were possible, it would be more satisfactory to give the Meeting the pith of the proposals.

THE CHAIRMAN then asked Mr. Hall, who had gone carefully through the letters, to give the Meeting, as shortly as he could, the gist of the modifications suggested.

MR. EDWIN T. HALL [*F.*] said he should be happy to state the effect of the suggestions the Council had received. The Leicester Society said that in their practice quantities generally formed part of the contract, and therefore the revised form did not actually meet with their local requirements: but otherwise, the Society expressed approval of the adoption of the set of Conditions put forward by the Council. The Nottingham Society's suggestion was practically to the effect that the reference should be so limited as to keep down the cost; and they suggested that there should be no expert evidence admitted before the arbitrator. He did not think that that suggestion would commend itself to the Meeting. Otherwise, the Nottingham Society approved the principle of the Practice Committee's clause. The Bristol Society said that there should be no arbitration clause at all, except for certain limited subjects. The Northern Association made no suggestion. The Manchester Society cordially supported the document as promulgated by the Council and the Practice Committee. The Sheffield Society suggested that there should be no arbitrator at all; but as the Institute had for many years committed itself to the principle that there should be an arbitration clause, that, he thought, could hardly be entered into by the Meeting. The Glasgow Institute said that the Scotch practice and the Scotch law differed so much from the English, that practically they had no suggestions to offer. They approved, however, of the arbitration clause proposed by the Practice Committee, saying that they thought it very admirable, and would be of the greatest value to them later on. The Royal Institute of Ireland, without making any specific suggestions, had sent for the guidance of the Council their own particular form, which they thought contained clauses better in some respects than those in the revised Schedule. He should explain that the Practice Committee had had that form before them when they drew up the new Conditions, and they had very thoroughly considered it. The Birmingham Association made no suggestion, but said that the revised Conditions formed the basis of those generally in use in their district. The Leeds and Yorkshire Society stated that in their practice quantities formed the basis of contracts, and therefore any suggestion of theirs would have no particular relevance. The Dundee Institute said in effect that the circumstances of the Scotch practice were so different that they had nothing to suggest. The York Society said that they had every confidence in the Practice Committee. The Cardiff Society said that they had used the old Conditions with satisfaction, but they objected very strongly to the arbitration clause proposed by the Institute of Builders. Then they suggested that the quantity surveyor's fees ought always to be paid out of the first certificate. Passing on to suggestions received from individual

* The draft Agreement and Schedule, and the proceedings at the Meeting of 29th April, are printed at pages 460–476.

members, Mr. T. Worthington and Mr. Robert Williams proposed that the quantities should be paid for direct by the employers. This was a principle that would be approved of by many, but it was not the practice. Mr. Williams also suggested the insertion of a clause requiring all contractors to pay Trade Union wages and observe Trade Union hours. That was a matter, he thought, that they need not discuss; it was not before them. Mr. Gregg wrote that he saw no objection to adopting the Builders' arbitration clause as drawn. He, however, seemed to be the only one among them who did not object to that clause. Mr. Solomon thought the Conditions excellent, but suggested some slight modifications. Mr. Fellowes Prynne had sent a very great number of suggestions, valuable in many respects, but so detailed that it would be impossible for any General Meeting to deal with them. No General Meeting could draw up a document of the kind under consideration; that could only be done by a limited number. Mr. Brodie had sent some suggestions, and he objected to the use of the word "reasonable." He (Mr. Hall) would like to say a few words upon that. Nothing which was unreasonable would be supported by any court of law; therefore the introduction of the word "reasonable" was not in the least degree objectionable. If an architect were to do anything unreasonable under the contract, the builder could get relief in a court of law; therefore they had not given themselves away in inserting the word "reasonable." Mr. Brodie also suggested that the strike must not be against the particular contractor only to give him relief. But the Committee had dealt with that, because they had said not only that the strike must be local, but that the contractor, notwithstanding any strike, must do all in his power, to the satisfaction of the architect, to proceed with the works, whether there be a strike or not, which enabled him, and of course required him, to make special arrangements. Mr. Stanley Peach had sent a very long list of suggestions. Mr. Osborne Smith wrote from Norfolk criticising certain points, but objecting strongly to the Builders' arbitration clause. Professor Roger Smith proposed that power should be given to withhold certificates, and suggested that they should refer the arbitration clause to the Recorder of London or a County Court Judge, and let him settle it one way or the other. It was not the practice for private Societies to refer a matter of that kind, which was strictly technical to themselves, to even so distinguished a man as the Recorder of London, even if he would undertake it. Mr. Walter Herring had sent a great many suggestions, principally dealing with the payment of the quantity surveyor's fees, and he had made two or three other practical suggestions; they were, however, merely verbal ones, not affecting principle, and they might possibly be considered later on. A telegram had just been received from Mr. Warren, the Hon. Secretary of the Devon and Exeter Society. It ran:

> Clause 11—Draw Institute's notice apparently objectionable provision being paid by contractor for making up extras omissions finally. Clause 24—words or initials "Prime cost" &c. Contractors shall mean unless otherwise stated in specification merchants' catalogue price for such goods.

There was no question of principle involved there at all. With regard to the general question, it was thought expedient that there should be a little description given of certain clauses, and he proposed to address himself to them. First of all, it might be desirable to refer again to the old Heads of Conditions. Many gentlemen thought that they ought to take that document and merely amend it verbally. As a matter of fact, he was sure that if anyone calmly sat down and attempted to do so, he would find of necessity that it would result in a document somewhat resembling that before them. The Heads of Conditions was a very jumbled document. For instance, Clause 3 dealt with setting out; it dealt with the quantities and qualities of materials; and it dealt with the cleaning of the building at the end. Those things did not naturally come together. The setting out had nothing to do with the quality of materials, and the Committee in the new document had endeavoured to put all those things under separate heads. Again, Clause 4 of the Heads dealt with the supply of drawings, the keeping of foremen on the works, and that the builder must not sublet. Those things had no connection one with the other. A document intended for reference should be clear, and when one wanted to deal with a specific subject like subletting, one should be able to turn to the clause dealing with that subject, and not have to hunt for it in the middle of another clause. With regard to the new Form, he wanted them clearly to understand the principles by which the Practice Committee had been guided. In the first place, they thought that the new Form should be very clear and easy of reference; and it would be found that as far as possible each subject was confined to a separate clause. Then the second principle was that each party to the contract should have clear notice of his obligations, and then there would be no injustice. In that connection, he thought it right to refer to the question of paying the quantity surveyor. The principle that had guided the Practice Committee was this: that they ought, on the face of the document, to let the employer and the contractor see everything they had to pay. There should be no smuggled or secret operation going on at all. Why should not the employer know that he would have to pay the quantity surveyor, either through the contractor or out of his own pocket? The Conditions stated clearly that those were things that had to be paid, and how they were to

be paid; and surely that was desirable. The next principle was that the architect should have control of the works to the end—that the building should be erected under his direction, and not under the direction of the arbitrator. That principle should be kept clearly before them, because that was really the essence of the difference between the Committee and the Builders—for, under the Builders' clause, no building could be erected except under the direction of the arbitrator. That was not sound at all. The direction should be in the architect; he was the judge of first instance, and appeals from him might be made at the end. With regard to their own differences, an objection to the Heads of Conditions was that it was merely a series of heads. Some rather prided themselves upon that. They, in fact, preferred a torso, where others preferred a child that would run alone, that had legs and arms of its own—that was the essential difference between them. What was the practice? Mr. Woodward told them at the last Meeting that he simply attached the Heads of Conditions to their specification, and they made it a contract. They did nothing of the kind; they were only the heads of a contract. That meant that they had to extend it to a document as long as the revised Conditions before it became a workable contract. Then it was said, "If that "is so, how is it that so many contracts are made "under it?" For the simple reason that in nine cases out of ten both parties were honourable men, and if a letter was simply exchanged between them, it would be all that was necessary; but in drawing up a contract, one had to meet the contingency of having to deal with men that were not honourable, both employers and builders. Further, one had to provide for the death of either party, when the lawyers step in and say what are the duties and obligations of the parties, and under the old Heads they were not defined. In the new Conditions the Committee had endeavoured to define them. To answer some of the objections which had been made: the first point was that raised by Mr. Arthur Cates. He objected, in the letter published in the JOURNAL [p. 465], to Clause 10. He (Mr. Hall) would tell them the history of that clause. Mr. Cates's objection, in which he was joined by Mr. Woodward, was that it was unfair to the contractor to throw upon him the obligation of looking at the architect's drawings and saying whether they varied from the contract drawings or not. He would explain how that arose. It was said that the architect should know whether it was an extra or not. That clause was put in to help the contractors, and not to oppose them. Under the old Conditions a contractor could not claim any extra whatever arising out of a drawing unless that drawing was distinctly *signed as an extra or variation.* The Builders in negotiating with the Committee said: "That is unjust to us; we cannot "get architects to sign a drawing and say it is an "extra; and under that contract we cannot get "anything paid in respect of a drawing unless it "is signed as an extra." The Committee replied: "That is a sound objection; we do not want to "do anything that is unjust to you, and we will "strike out the words objected to." Then the Committee went on: "But now, we do not want "two things to happen: we do not want that you "the contractor shall be watching our drawings, "and whenever you see a drawing that is a slight "extra you shall make a note of it, and when you "see a drawing that is an omission take no notice "of it, and at the end of the contract pile up "a long list of drawings which are slight extras "without giving us credit for omissions to meet "those extras." Therefore the Committee put in those words with the Builders' absolute consent, so that instead of the clause reading that they shall not claim an extra unless the drawing is specifically signed as such, it now reads:

> The Contractors shall not vary from the drawings or specification except as provided by Clause 4, or by the authority of the Architect, which is to be sufficiently proved by any writing or drawing given by him.

Then the Committee cut out the words "and "signed as an extra," and to meet that said:

> If the work shown on any of the details or the further drawings or details referred to in Clause 1, or necessary to comply with any instructions, directions, or explanations which may be given from time to time by the Architect, is, in the opinion of the Contractors, in excess of that comprised in the Contract, they shall, before proceeding with such work, give notice in writing to this effect to the Architect.

Then the clause went on that if they did not agree as to the extra the arbitrator should settle it. Was not that absolute justice to the builder? It gave him an opportunity of raising the question. But under the old clause he had no such opportunity, unless the architect specifically signed his drawing as an extra. Therefore, instead of its being a reproach to the Committee as an injustice to the builder, it ought to be placed to their credit for leaving out words that were objectionable and putting in what was thought reasonable. Supposing they were carrying out a building, and, for the sake of argument, they had a handsome screen in a hall which they chose to make a little more handsome, making compensation by striking out work somewhere else—was not that a thing that occurred every day? They wrote to the builder what they proposed to do, and the builder said, "Quite right," and that was the end of it. That was the practice, and the new Conditions met it by saying that it should always be settled at the time, and if not, the builder should give notice; so the builder was in a better position than before. The next objection raised by Mr. Cates was as to Clause 12. He challenged the payment for Bills of Quantities. But what

was there in the remotest degree objectionable there?

> The fees for the Bills of Quantities (if any) and the Surveyor's expenses (if any) stated therein shall be paid by the Contractors to the Surveyor named therein immediately after payment of the amount of the first certificate in which they shall be included.

It was said that that was ambiguous. Why was it ambiguous? The usual practice was to pay out of the first certificate, but supposing that the builder said, "I have reason to think there are "inaccuracies in these quantities," it was right, surely, that the architect should have the power to say, "Let it be investigated; in the meantime "I will not include it in the first certificate, but "when I do include it, you shall pay it." Was not that an absolutely equitable way of dealing with it? And why should they not protect the quantity surveyor? It was said that it was improper to put his name in. Why? Was he not a person who had to be paid? The Conditions stated that the employer should have the power to pay the merchants from whom the architect selected goods under provisional amounts. Surely the reason of that was because a moral obligation rested on the architect to see that the merchants who, on his recommendation, supplied the goods should be protected. And the quantity surveyor, who in nine cases out of ten was nominated by the architect, had an equally moral claim upon the architect to see that he was paid. And if the builder did not pay him, the employer should have power to do so. Those were the two greatest questions that had been raised in the present discussion. Had they not been treated with absolute equity? The subject had been discussed again and again in the Practice Committee with the sole desire to deal equitably; the Builders themselves had agreed to the clauses, and yet it was said that there was something immoral in their provisions. It could not be immoral if they put on the face of the document every obligation under which the employer or contractor was bound. It was wrong to have any conditions which left the responsibilities of the parties in doubt. Only a few weeks ago, in the course of a discussion on Mr. Strahan's Paper [p. 197], Mr. Woodward stated that he had had a difficulty; he had been settling an account and putting his own quantity surveyor's fees in to be paid by the contractor. The contractor then made a claim for the fees of his own quantity surveyor. Mr. Woodward asked his professional brethren to advise him what to do. If Mr. Woodward had had this clause, he would have had no difficulty whatever, because it was there laid down that the quantity surveyor should be nominated and agreed upon, and his fees should be paid. If Mr. Woodward had had the benefit of that contract, he never would have had that complication with his contractor; so he hoped that even he would see that there was a little reason in the clause. Referring to the matter of sub-contracting, the question had been threshed out in great detail with the Builders. The point was this: A contractor entered into a contract to build a house for £10,000, and that £10,000 included many provisional amounts for work done by contractors nominated or approved by the architect. He was bound under his contract to finish the whole of the buildings, and therefore was responsible for everything that was in the £10,000, and this responsibility was specifically stated in the Conditions. The Committee had defined it by this clause, not made it worse, and the Builders had agreed that that was the right and just way of dealing with the matter. Another point. The head contractor made a profit, or presumably made a profit, on sub-contractor's work; and they said that he should earn that profit by seeing that the sub-contractor complied with the specification and Act of Parliament, and that he did not put his hot-water pipes within an inch of the woodwork when the Act specified three inches. Further, the contractor was bound to give the District Surveyor notice of the works; but if the sub-contractor was, as some speakers had said, a separate contractor, he probably or possibly, under the Act of Parliament, must give a separate notice to the District Surveyor. Incidentally, that might work out in this way—that the District Surveyor would be entitled to three or four separate fees, because it was contended that each separate contractor must give him separate notice. The District Surveyor might see no objection to his having three or four sets of fees; but still he thought that an employer might take a different view. It was better that one notice given by the head contractor should undoubtedly cover the whole responsibility. The last question that he should trouble the Meeting with, which he thought was the crux of the whole document, was the question of the Arbitration Clause. The principles underlying that clause were these: first of all, the architect was the judge of first instance; secondly, there should be an appeal from everything that he said or did, with certain reservations; thirdly, that there should be notice of every dispute. He would draw their particular attention to the fact that in the Builders' clause all those points might be raised at any time without notice, or might be bottled up until the end of the contract, and then brought forward; so that a huge case relating to a building which had taken, perhaps, three or four years to construct might be brought forward without any notice whatever having been given to the architect when the questions arose. Was that justice? Did it not mean that the architect or the builder might be (if the employer did the same thing) in the position of not being able to answer the case at all? Not having had notice of the difficulty that had occurred three years before, how could he bring evidence to meet the charge before the arbitrator? That was

a principle of great importance. Their own clause said that there must be notice given of every question in dispute, and in the Builders' clause there was no notice whatever. Then, finally, the Institute clause said that the appeal should be at the end, but with special power to have it at any time by mutual consent. They all recognised that there was a great deal to be said for having an arbitration at different times of the contract; the Committee had not shut their eyes to that fact; it was a great convenience to both parties to settle important disputes as they arose; but it was quite another thing to give a litigious builder an opportunity of raising day by day and week by week questions of dispute which must of necessity delay the contract, delay the execution of the works, and end in grave trouble all round. Therefore the Committee had put in that which was quite just, that if there was a matter in dispute which both parties agreed ought to be settled at the moment, it was to everybody's interest to settle it, and by mutual consent that was done; but, as a general principle, the balance of argument was for saying that the rule should be a reference at the end, to determine all matters in dispute. That must, he thought, commend itself to everybody; but he should like to give them the opinion, not of himself, or of any person highly interested in the matter, but of a gentleman who read a Paper before the Institute a short time ago, an eminent barrister, Mr. Strahan.* He said, speaking of the power of the builder to have arbitrations:—

> In the first place, he can harass the employer by opening up everything arising or done under the contract, and by making all sorts of allegations as to the conduct of the architect and the employer himself. By insisting on having all these investigated, he can give great trouble and cause enormous expense. Very often the mere threat of doing so is sufficient to induce the employer to come to an arrangement all to the advantage of the contractor.

Now, that was an important opinion of a gentleman who had not seen their Conditions, who knew nothing about them; and, therefore, he was not a party man at all. He went on to say:

> In such contracts I usually advise that a clause be inserted making the architect's decision on all disputes and matters arising during the progress of the works final and conclusive until the completion of the works. This is necessary to prevent delay through the reference of disputes to arbitration during the progress of the works—delay which is sure to give rise to further disputes as to penalties, time of completion, and other matters.

That was the opinion of an independent gentleman. What did Mr. Currey say? Mr. Currey had written him a letter that day in which he said:

> It would be a matter of great regret if the labour of the Practice Committee for the last three or four years were all rendered useless. I feel it is quite hopeless to enter into any further negotiations with the Builders' Institute, particularly after the letter of 25th ult. which they thought fit to send to the R.I.B.A. My recollection is entirely at variance with the statement that their assent to the several clauses was subject to the acceptance by the Committee of an arbitration clause to be settled by the solicitors. . . .
>
> In my opinion the arbitration clause suggested by the Royal Institute of British Architects is fair and reasonable, and is the utmost which should be conceded by the Institute. . . . I should not have ventured to trouble the Meeting with my observations, but as Chairman of the Practice Committee I may, perhaps, be excused.

The Chairman of the present Meeting (Mr. Aston Webb), during the discussion of Mr. Strahan's Paper, had said [p. 214] that he had always understood that the architect was made absolute during the progress of the work, both in regard to the question of materials and to the manner in which the work was to be executed; otherwise he did not see how the work would ever get finished. That was the principle on which the arbitration clause before them was drawn. In the Builders' circular letter [p. 466] it was said that they had given way on many clauses because they were to have the right to an arbitration clause to be left to the settlement of the solicitors. If that argument was accurate, it was a most disingenuous one. The Builders were giving them (the Architects) the shadow, while they retained the substance for themselves. The Builders must surely have given the Committee credit for little common sense if they thought the Committee were going openly to walk into such a snare. Finally, he would like to read them the opinion of counsel on the clause before them. Counsel was asked these questions:

1. Whether the clause as drawn by the architects gives power to the arbitrator to hear and determine any question or dispute of whatever kind that may have arisen under the contract, except as to those matters left to the sole discretion of the architect.
2. Whether it gives the arbitrator power to review and revise every decision of the architect on every question, except on such matters as are left to his sole discretion.
3. Whether it is clear that, with the consent of both parties, arbitration can be resorted to at any time during the progress of the works.
4. Whether the clause is not a fair and equitable interpretation of the clause settled in September 1892.
5. Whether it is such a fair and proper clause as a builder could be on a private contract properly advised to accept.

The answers were:—

1, 2, 3. Beyond question, yes.

4. Yes. In my judgment the earlier clause had all the effect of the later, which, no doubt, expresses the intention of the parties more clearly in the interests of the Builders.

5. I answer the last question unhesitatingly in the affirmative.

That was counsel's opinion on questions which, they would all agree, were perfectly fair questions, and not written with any intent to draw an *ex parte* opinion from him. The Committee's solicitor, Mr. Harrison, of Messrs. Waterhouse, Winterbotham, Harrison & Harper, desired him (Mr. Hall) to say that he had not seen the counsel to give him a hint on the subject; and that counsel was the

* "The Legal Position of Architects in relation to Certificates and Awards," *ante*, p. 197.

gentleman who had advised all through on the other Conditions, and therefore knew them by heart. The solicitor stated in a letter to him that he cordially agreed with the opinion of counsel. In conclusion he would ask, were they going to follow the lead of the Builders, who were interested parties; or were they going to follow the lead of the Council and the Practice Committee, who had no interest whatever except to guide them to be fair and equitable in their dealings with the Builders? That was the question before them. If they gave a vote adverse to the proposition before the Meeting, then they said in effect: "We "would rather follow the guide of an interested "party than follow the disinterested advice of "gentlemen who have spent years in studying "this question, with the sole and only object of "dealing absolutely with fairness and with equity "between builder and employer." Further than that, he would say that, if by their vote they came to a conclusion adverse to the proposition, they would certainly have struck a blow at the working of the Practice Committee or any other committee of the Institute. Gentlemen could not be found, busy men could not be found, to give years and years of their labour to come before this general body, and then to have it said: "Very well, we "ignore all the labour and advice that you have "given us, and we choose instead to take the "advice of gentlemen who are interested in oppo-"sition to your views." If that was their vote, it would be received, of course, with very great regret. He hoped and believed it would not be their vote, because he hoped and believed that they had, as some of the Allied Societies had said, perfect confidence in the Practice Committee; and if they had that perfect confidence, they would express it by their decision that evening.

MR. T. H. WATSON [*F.*] said he had carefully compared the arbitration clause, and it seemed to him that the clause as drawn by the Practice Committee contained words quite sufficient to bring into arbitration any possible question that could arise. That being so, although possibly there might be some little things which they might not look, and hoped never to have to look, too curiously into, he had little doubt that many of those things that were proposed by the Builders it would be open to the arbitrator to consider. Knowing, however, what he did of the builders and their business habits, he thought that all reasonable men and all fair-minded men would accept that very fully drawn clause, and rest perfectly satisfied with it.

MR. C. FORSTER HAYWARD [*F.*], F.S.A., asked for information about a document, a copy of which he produced, which, he said, had been in general use amongst several architects, and which he had recently purchased. It did not purport to be "Heads" at all, but was endorsed "Re-issue: "January 1894. General Conditions for Build-"ing Contracts. As agreed with the Royal "Institute of British Architects and the Builders' "Society and adopted by the Central Association "of Master Builders of London. R. S. Henshaw, "Secretary, 31 Bedford Street, Strand, W.C. "Price fourpence." That he believed to be an exact copy of the Institute Paper, and he had adopted and used it, thinking it was the same thing. He wished to ask whether that document was the same thing as what were called the "Heads of Conditions."* He knew it to be at the present time part and parcel of very many contracts.

MR. C. STANLEY PEACH [*F.*] understood from Mr. Hall's explanation that the proposed Form of Agreement was a legal document, and therefore it must be discussed as such, although he thought that as they were architects it was not their business to do so. He submitted that it was impossible to contract out of an Act of Parliament; yet, nevertheless, it seemed that this was what the suggested Form attempted to do. It also appeared to limit the operation of Acts, which could not be done. He thought that the new Form was as "jumbled" as the old Heads of Conditions, and referred to the two distinct covenants of Clause 2 of the Schedule, which clause is annotated as "Copies of Drawings and Specifica-"tion," and asked if any reasonable man would expect to find a covenant as to deposit of copy of estimate in a clause dealing with furnishing copies of drawings, &c., and their retention and return, and annotated as dealing with "Copies of Draw-"ings and Specification." He submitted that the covenant to deposit copy of estimate should be a separate clause, and be grouped in the Schedule with covenants of a like nature. He thought that Art. 3 of the Form of Agreement contained a strange proviso. The words were: "Provided "always that no person subsequently appointed "to be Architect under this Contract shall be "entitled to disregard or overrule any decision or "approval or direction given or expressed by the "Architect for the time being." Suppose an architect were superseded in consequence of becoming insane, apparently the succeeding architect would, by this clause, be bound by the vagaries of a madman; and he asked if that was the intention of the covenant. He submitted that in ninety-nine cases out of a hundred if the architect first appointed is superseded it is on account of his

* The Paper handed in by Mr. Hayward was found to be an exact copy of the "Heads of Conditions" published by the Royal Institute of British Architects, and for many years registered as its property at Stationers' Hall—with the exception of its title and the price it was sold at. The Royal Institute Paper is endorsed as follows:—

BUILDERS' CONTRACTS. HEADS OF CONDITIONS SANCTIONED BY THE ROYAL INSTITUTE OF BRITISH ARCHITECTS. Usui Civium, Decori Urbium. London: Published by the Royal Institute of British Architects, 9 Conduit Street, W. Price Sixpence. [Entered at Stationers' Hall.]

illness or death, and a man in failing health might, and probably would, give decisions which under other circumstances he would not have given while in health, and a scheming contractor might take advantage of this. Surely the succeeding architect should not be debarred from remedying matters of this kind, and still more so if the architect first appointed be superseded for negligence or incompetency, or where collusion between architect and contractor may have taken place. Mr. Peach said that Clause 4 of the Schedule appeared to limit the operation of Acts of Parliament by confining the responsibility of the contractor to matters "with whose system" the "structure is "connected," whereas the contractor was bound to uphold and protect such things as electric mains, gas and water pipes, telephone or telegraph wires, whether a supply from any of these things was connected to the structure or not; and in reply to a question from Mr. Hall, Mr. Peach gave as his authority for the statement the Electric Lighting Act 1882 and the Electric Lighting Orders Confirmation Act 1889, and the several Provisional Orders.* Another point he should like to call attention to was the insertion of the words "free of cost" in Clause 2. They appeared to him unnecessary in the face of the rules of the Institute.

MR. LEWIS SOLOMON [*F.*] wished to speak with regard to the few matters that he had brought under the notice of the Council. Clause 2 said: "Such copies and details shall be kept on the "works until the completion thereof." That, he thought, was rather a mistake, and might be amended. The proper place for full-size details was with the tradesman or artist who had to carry them out. Clause 9 said: "The architect and "any person authorised by him." He should like the word "person" to be altered into "persons." If it were put in the Conditions of Contract that "the architect and any person" should be admitted, the builder might say, "I am only bound "to admit one person, and I refuse to admit any "second person," precisely as he had the power to refuse admission to a District Surveyor's clerk, because he was not specifically bound to admit him. In Clause 11 something should be inserted to show that the priced quantities are not to apply where there is an evident error in the pricing. For instance, he happened some time ago to have priced quantities, and it was found that the brickwork in cement was priced £17 per rod extra over mortar. Assuming that he had ordered all the brickwork to be in cement, there would have been an enormous addition to the cost. He had had the same thing occur in another contract, where concrete made with cement was charged 12*s.* a yard more than if made with mortar. Something should be done, he thought, in the new Conditions to prevent that occurring. He had also seen priced quantities where ordinary straight joint pointing was put down at a higher price than tuck pointing. It happened that the client, in order to save money, struck out the tuck pointing and ordered straight joint pointing; the builder claimed an extra, and it was a fine question whether he was not entitled to it. That could not be done under his Conditions of Contract, because he always put in a special clause to that effect. Clause 15 he did not think they should agree to; that was a matter of principle, not a matter of detail. That a sub-contractor should do work, and that the contractor, with no voice in the matter, should be charged for any *lâches* not under his own control, he thought, was wrong. Clause 17, which laid down that the contractors should not sublet any portion of the work, wanted a slight modification. For instance, the architect did not want to interfere with the pulling-down sub-contractor the builder might choose to engage. He wished to bring those points before the Committee for them to consider, not in any spirit of opposition at all. With regard to the issue of the document, could it not be done in some shape like the Bankruptcy papers or other papers issued by the Government, where the marginal notes were very full, and the blank spaces were really blanks, and nothing had to be erased? He noticed that there were alternative methods to scratch out one thing and insert another, and he thought those alternatives should all be left in blank, so that the architect could fill them in in the way he desired.

MR. G. H. FELLOWES PRYNNE [*F.*] said that if it was open to him, he would like to raise a few questions on the suggestions he had sent in. He understood that those suggestions would be considered. [The Chairman assented.] With regard to the third article of the Agreement, it was rather taken for granted as a *sine quâ non* that an arbitrator must be appointed. Might not the following words be inserted: "unless the con-"tractor shall state reasonable grounds for objec-"tion to such nominee, when the matter may "be referred to the arbitrator," and so on? [MR. HALL asked who was to say that they were reasonable. That had been a subject of great discussion with the Builders, and it had resulted in a compromise, which was certainly fair.] Then it was taken for granted that an arbitrator would be appointed. Why say "to the reasonable satis-"faction of the architect" in the first clause of the Schedule of Conditions? It would be as easy to define "reasonable" in one case as in another. Then near the end of that clause, after "approval "or direction," he would add, "which shall be "proved to have been given." He thought that was

* See Clause 12 and Sub-sec. 2, Clause 12, Electric Lighting Act 1882. For notice before touching or altering mains, see Clause 17, Sub-sec. A, Electric Lighting Orders Confirmation Act 1889. See also Gasworks Clauses Act 1847, Telegraph Act 1878, and the various Acts of Water Companies.

reasonable. [MR. HALL said he might answer that at once. So long as the architect was the architect of the building, the employer ought to be responsible for whatever that architect did; and if a subsequent architect came in and disagreed with what had been done, and wanted a change, he could only treat it as a variation under the contract and pay the builder for altering it.] He agreed with Mr. Hall, but still thought that for the protection of the new architect as well as employer such directions should be proved to have been given in writing or otherwise. Then, at the end of Article 3, he suggested the addition of the words "except only as "regards defective work or materials contrary to "the intent and meaning of the specification and "drawings." The learned counsel to whom he had referred this said that it was certainly a weak point, and his opinion was very strong. Then, in Clause 2 of the Schedule he suggested that it should read "verified and signed." If an estimate was verified, it should be signed by the contractor and made part of the contract, or signed, anyhow, as connected with the contract. Then the next point was important. The contractor, of course, had a clerk of the works or a foreman, and between Clauses 9 and 10 he proposed to insert a clause to the effect that the architect might be represented by his clerk of the works, who should not only be put in as of right, but appointed under a condition specifically mentioned in the contract. A clerk of the works clause ought to be given, stipulating exactly the power of the architect to employ him, and not only to employ the clerk of the works, but stipulating the extent of his powers, and that no extras should be ordered by him. He should be glad if the Committee would consider that clause, which he suggested should read:

> The Architect may be represented on the works by a clerk of the works, or agent, who (if appointed) shall, in the absence of the Architect, furnish the Contractor with the Architect's instructions and directions as to the progress and execution of the works, and the Contractor shall duly attend to and comply with such instructions and directions, and shall, upon the written requisition of the clerk of works, stay the further progress of any portion of the works, which in his judgment is being constructed with unsound or improper materials, or workmanship, until the opinion and determination of the Architect shall be obtained thereon; but such clerk of works, or agent, is to have no power whatever to order any extra works, or deviation from the specification and drawings, and the Contractors will have no claim for extra works ordered by him.

Those terms were taken from three Conditions that he had had—Mr. Waterhouse's, Sir Gilbert Scott's, and Mr. Street's—he had tried to embody the three. [MR. LACY W. RIDGE [*F.*] said they must remember that this was a contract between the employer and the builder; it was already very much complicated by the introduction of the architect, whose position had to be defined. He thought they would do wisely in not recognising the architect's deputy.] He (Mr. Prynne) was sure it would be a very great mistake if they did not. As they had got over the complication of introducing the architect, a clause such as suggested would overcome the difficulty of his assistant. In Clauses 13 and 14 he noticed that the architect had no power whatever to withhold a certificate under any conditions. It was most eminently necessary that he should have. He proposed the insertion of the following:

> The Architect shall be entitled to withhold any certificate in respect to work not carried out to his satisfaction, or while the Contractors fail to comply with his instructions, or make needless delay in proceeding with the works.

It was a simple clause, but it avoided any distinction. [MR. HALL said that in his opinion that was a penal clause which could not be supported in a Court of Law. If a man had done work and was entitled to payment under his contract, he was certain that that clause would not hold water. The payment clause, No. 27, dealt with that point. The architect would not issue a certificate if a man had not done his work in accordance with the contract, because he was not entitled to money at all.] He (Mr. Prynne) found that that clause not only acted as a lever to prevent trouble and delay, but the very fact of having the power to withhold the certificate until the work was carried out in accordance with his instructions had been sufficient to have them carried out without the necessity of litigation or arbitration. The omission of "Clause 14" in the Arbitration Clause was a great mistake. In the Heads of Conditions No. 10 was included in the Arbitration Clause, and it seemed a great pity that the architect's decision as to material at the beginning of the work should not be decisive. [MR. HALL explained that that had been very fully considered; but the Builders said it was not just to them, and the Committee had had to give way.] He felt that these Conditions had the fault of being drawn much more from a builder's than an architect's point of view. The builder, of course, might wait till the end of the contract till the thing was settled; but it was very difficult to go back on the material that one might have condemned at the beginning of a building. [MR. HALL: The architect condemned it under Clause 14. If the builder said that he had unjustly condemned it, he brought the matter before the arbitrator at the end of the contract, and claimed for damage sustained, and it had to be dealt with then. One might be certain that in practice, if an architect was doubtful at all as to what he had done, he would call the arbitrator in then to say whether it was right or wrong.] Surely it was not intended that an arbitrator should be called in every time work or materials were condemned. If so, he considered it a most unwise and expensive way of procedure. Who in the course of his experience had found, after condemning work, that the builders did not think it unreasonable? The builder might say that he had a right to arbitration every time a thing was condemned. In

the original Heads of Condition the architect's decision on such matters was final, and in this particular had always been found to work well. There was no sufficient reason given for its omission from the new Arbitration Clause. He sincerely hoped that this question would be carefully reconsidered by the Council.

MR. ALEX. PAYNE [*F.*] thought that the Arbitration Clause had gone too far in allowing the builders to open up disputes. It said: "The "arbitrator shall have power to open up and re-"view any certificate, opinion, decision, requisition, "or notice." Did that mean that supposing they had gone on smoothly with the contract, and everything had been agreed and they were getting near the end of the job, if the builder found that it had not paid him he might refer to arbitration anything that had gone before from the commencement of the work? If it were distinctly understood that the arbitrator had only power to open up and review matters of which such notice had been given at the time the dispute occurred, that was sufficient. [MR. HALL pointed out that it said earlier in the clause: "then either party shall "forthwith give to the other notice of such dispute "or difference."] But that came a long way down; would it not be better to express it, "when "due notice has been given"? He should like also to ask if it would be possible to use the Conditions where the quantities were made part of the contract. It would be absolutely mad, he thought, to agree to the clause as submitted by the Builders. The clause recommended by the Committee went too far in the way of allowing litigation, and it would be better not to have any clause at all than to hand themselves over to people who wanted to litigate. He always put in his own contracts that no matter should be referred to arbitration that had been previously agreed between the parties.

MR. DOUGLASS MATHEWS [*F.*] thought Mr. Payne was quite correct. They ought not to let the contractor open up everything at the end of the work unless either party gave the other notice of the dispute or difference.

MR. W. H. SETH-SMITH [*F.*] thought that the discussion pointed to the conclusion that they should not look at those general conditions as a legal document, but that they should still look, if not to the actual wording, at any rate to the sense of what the old set of Conditions announced, that they were only Heads of Conditions; otherwise, if they attempted to make a legal instrument of it in their amateurish way, they were sure to run their heads against a brick wall. He very heartily supported Mr. Fellowes Prynne's proposition as to the insertion of a clause in reference to the clerk of the works. With regard to the Arbitration Clause, if the principle which had guided the Practice Committee in that matter were adopted—that is, of leaving all the questions of which notice had been given till the conclusion of the works—that might lead them into great difficulty occasionally. For instance, supposing the example Mr. Hall had mentioned of a million of bricks being condemned by the architect was agreed to be referred at the end, and those bricks had proved to be too porous, or of a quality not as good as the builder should have put in—it was impossible to redress the grievance of the employer at the end of the contract when they had been built in. There were many points that a builder might raise which, if they were referred to the end of the contract, might create some difficulty. He fully understood that the Practice Committee must have given an enormous amount of attention and consideration to such a weighty matter as this principle which had guided them in drafting these conditions, because the Arbitration Clause was referred to in other clauses. The sealed bill of estimates was rather an important point; if that bill was sealed it must be verified, and who was to verify it? The quantity surveyor might; but he had been told that evening of a case in which the sealed estimate for a large contract was handed to the architect by the builder, and he said that it was not his practice, and he declined to leave it sealed. The architect opened it, and found a mistake to the extent of £1,000 against the contractor; needless to say the contractor was rather pleased. It was a difficult thing when one had to deal with questions of that kind, which were constantly occurring. One's client wanted to know during the progress of the work what a suggested extra would cost. [MR. HALL explained that that had been fully considered, and in the printed form there was the omission of a marginal note, that everything put in square brackets in the document was intended to be an alternative, and the note that ought to be in the margin read: "To "be left in or struck out as may be agreed in "each special case."] He (Mr. Seth-Smith) would suggest in the 3rd clause of the Schedule, after the words "to be inferred therefrom," the insertion of the words "as being necessary for the "proper execution of the works." He thought that would make it a little clearer. With regard to certificates of completion, the words in the 27th clause were, "when the building is practically "completed." He should like to know the principle that had guided the Committee in adopting that particular clause, and the stipulation as to payments, and what the upholding responsibilities were. It was customary with some architects (it had been with himself) to issue a certificate when the building was practically completed, and it was very difficult sometimes to define, without that, when the exact period of upholding terminated. He did not know whether the clause which the School Board had adopted would be any help in making the contractor responsible for anything that was fraudulently neglected beyond the upholding period.

MR. HALL replied that there was no such

thing in those conditions as a final certificate. They had purposely avoided it. They had said that if the contractor had done anything objectionable and fraudulent he should be held liable until the Statute of Limitations released him. In the old Heads of Conditions there was a final certificate of completion as to which there had been no end of litigation, and the practical result was this: that if the architect gave a final certificate of completion, and it was found afterwards that the building was not completed in accordance with the contract, the probability was that the employer had a good ground of action against his architect.

MR. WILLIAM WOODWARD [*A.*] said that as he intended to oppose the Conditions being accepted, he would like to make a few observations. There was no necessity to apologise for one's opposition to the revised Conditions, as two or three speakers had suggested. They had had a very fair hearing from the Chairman and the Committee throughout. With regard to the Builders' agreement, he never supported, and should not support, the Builders' Arbitration Clause. In reference to the old Heads of Conditions: he had adopted them for many years, and they had never been questioned, as they would have been if they had not been perfectly legal; and he might say that no builder or lawyer had ever yet been able to upset them. If they were attached to the specification, and referred to in the tender as forming the conditions of contract, they were perfectly legal, and he challenged Mr. Hall to point to any opinion of counsel which declared that they were not. [MR. HALL answered that the Bankruptcy Law had been altered three times since those Conditions were drawn, and the Bankruptcy Clause alone was absolutely illegal. If that was not sufficient he could give one or two other points in the Conditions, and also counsel's opinion as to the merits.] Mr. Hall had placed the Meeting in a very unfortunate position. They were about to vote, and Mr. Hall had told them that they were going to vote in this way: Whether they would support the interested motive of the Builders; or whether they would support the hard work of the Practice Committee for the last six years. That was not the way to put it. It was not a question of whether they were to vote for an interested party in the matter at all. The Builders certainly were entitled to have these Conditions fair, and the whole beauty of the former "Heads of Con-"ditions" was that they were agreed to by the Builders. Now what position should they be in if they voted in accordance with Mr. Hall's suggestion? The Meeting would vote that the Conditions should be adopted. But what would be the use of them? They would not be of the slightest value. Assume the Conditions approved and printed, and the week after one wanted to enter into a contract with a builder. Take, for example, any substantial firm with whom one desired to enter into a contract. What would be the result? The builder would ask: "Are "these the new Conditions that the Council of the "Institute have issued, or are they the Conditions "previously agreed by the two?" One replied: "They are the new Conditions," and the builder would say at once: "I decline to sign them." The Conditions would then be absolutely useless. Now the main point he drew attention to, which Mr. Hall had not at all explained, was this: he had not explained the operation which must take place in the builder's office in order to discover whether the full-size details were or were not in excess of the small-scale drawings. Mr. Hall knew perfectly well with regard to a stone front that the builder must be put to an expensive and difficult operation in order to find out at the moment whether those drawings were in excess. The architect was the man who should know, and did know, whether they were in excess of the small-scale drawings. Mr. Hall had referred again to the surveyor's charges, and he used an argument which was really almost amusing. He said that the builder might come to the architect and say: "You know I have a suspicion that these "quantities are insufficient." So that the mere fact of the builder coming to the architect (with a very distinct object so far as his experience of builders went, namely, that of paying the surveyor out of the first certificate), and raising a suspicion as to the quantities, was a justification for the architect not to include the surveyor's charges in the certificate. Then there was another important question: Were they to vote on the Conditions as they stood? Had they been amended? Would they be amended? Were they, in a word, to vote on the principle of the Conditions, or on the Conditions as they were printed?

THE CHAIRMAN said it was proposed to add some such words as the following to the resolution which had been moved: "Subject to such verbal "amendments as in the discretion of the Council "may appear to them desirable." He thought that possibly the Meeting might see fit to leave these matters, which would be carefully considered by them, in the hands of the Council.

MR. G. T. HINE [*F.*] wished to say, as the mover of the amendment "that the Agreement "should be referred back"; that he moved it, not in any antagonistic spirit, but merely to afford an opportunity of ventilating and reconsidering the subject. As he now understood, the Conditions had been before the Practice Committee for a great number of years, and he was therefore afraid it would be no use referring them back again to this Committee. He understood that it was not obligatory upon any member of the Institute, any more than on any member of the Institute of Builders or any other builder, to accept the Agreement as it stood, and it was therefore open to any architect or his client to add to, amend, or withdraw anything which he desired. Therefore,

with that understanding, he begged leave to withdraw his amendment.

MR. T. M. RICKMAN [*A.*] said there had been certain difficulties with the Conditions of Contract which had been published and put forward by the Institute for a number of years past. The Master Builders' Association had wanted exceedingly to introduce quantities as part of the contract, and they had published a document consisting of a set of Conditions in which they had inserted the quantities as part of the contract, and they had put at the back of those Conditions the statement that they were founded upon the Conditions agreed to by the Royal Institute of British Architects and the Builders. The real advantage of the old Conditions was that they did meet, that they had met, with the agreement both of the Builders and of the Institute. So far as regarded the new Conditions, except the Arbitration Clause, and some very small exceptions which, he thought, could easily be got over if there were a real desire on the part of the Institute and of the Builders to meet each other, he thought those Conditions were a very great improvement upon the Conditions which had been in vogue. As regarded the Arbitration Clause, there was one important point: whether the arbitration should take place only at the end of the works or at such immediate times as might be necessary. It seemed to be generally agreed that in large works it might be absolutely necessary to have an arbitration in the course of the contract. All that was wanted was that the clause providing that the arbitrator should only be called in at the end of the work should be put in brackets; and if that was left open, then in each case, when agreeing upon the Conditions, that clause would be inserted or would not be inserted according to the status of the building they were engaged upon. And so with a very large number of other points raised in the Conditions, they might be varied with advantage in each case. As regarded the Arbitration Clause, he had been in hopes that the Institute would have maintained the principle of the Arbitration Clause which had been adopted and published by it for so many years. If the present Meeting were perfectly satisfied to withdraw from that clause, that they would not accept such a thing, then the vote would be passed and the Conditions would be published without any sanction whatever from the Institute of Builders. And the first consequence would be that whenever it was intended to apply this set of Conditions, the builder on the one side and the architect on the other would be practically agreed, after striking out a few words here and introducing a few words there, on all the clauses except the Arbitration Clause, and upon that they would have to go through the fight that the Committee had gone through, and it would be a question which of the two parties was the stronger. But the object of the Committee, and his object, so far as he had had to do with it for many years, had been, if possible, to put before the Institute a set of Conditions which would not require that fighting over. To put a set of Conditions forward which would form an absolute contract he did not hope. He was sorry when it was found necessary in the course of the negotiations with the Builders to put the Conditions in the form of a contract instead of Heads of Conditions; but he found that the feeling on behalf of the Builders was so strong that it was necessary to give way, and they had adopted the form before them. The consequence of passing these Conditions as their ultimatum of the form of an Arbitration Clause would be that in every case the subject would have to be threshed out again, for which he should be very sorry, as he should feel that a very large part of the time which had been given by himself and others to the subject for so many years had been thrown away.

MR. A. S. FLOWER [*A.*] called attention to a point in Clause 4 which had not been mentioned, "and of any water and lighting companies," suggesting that it should read, "any water or "lighting companies."

The resolutions were then put from the Chair, and duly carried [see Minutes, p. 522].

THE CHAIRMAN felt sure that, before the Meeting closed, they would think it only right and proper to thank the members of the Practice Standing Committee who had given such an immense amount of their time and valuable experience to the consideration of the question. He was glad Mr. Rickman had been present, because he was one of those who had taken the greatest possible amount of trouble over the matter, and he was quite sure that if anyone could have come to an arrangement with the Builders over the question of the Arbitration Clause Mr. Rickman would have done so. Mr. Hall had made the subject his own, and had thoroughly mastered every point that could arise. Mr. Boyes, too, had also given a great deal of time to it; so had the Chairman, Mr. Currey, and all the Committee. He asked the Meeting to pass a hearty vote of thanks to them.

MR. OCTAVIUS HANSARD [*F.*] said that, as an old member of the Practice Standing Committee, and having been behind the scenes of the great and indefatigable labour that had been devoted to the subject, he should be only too pleased to second such a vote of thanks. The Committee deserved their heartiest congratulations.

The vote of thanks was agreed to and carried with loud applause.

The sense of the Meeting having been taken as to the desirability of printing in the JOURNAL all the communications on the subject which had been received from the Allied Societies and from members, it was understood that the *résumé* given by Mr. Hall was sufficient.

MINUTES.

ADJOURNED SPECIAL GENERAL MEETING.

BUILDING CONTRACTS.

At the Adjourned Special General Meeting, held on Monday, 13th May 1895, Mr. Aston Webb, F.S.A., *Vice-President*, in the Chair, with 35 Fellows (including 10 members of the Council) and 20 Associates (including 1 member of the Council), the Minutes of the Meeting held 29th April 1895 [p. 477] were taken as read and signed as correct.

The Hon. Secretary announced that since the last Meeting a circular letter inviting suggestions on the revised Form of Conditions of Contract had been despatched to the Allied Societies in the United Kingdom, and that communications in reply had been received from all, with the exception of the Liverpool Society. He also announced that various communications on the subject had been received from individual members of the Institute. Mr. E. T. Hall [*F.*], having, at the request of the Chairman, given a brief summary of the several communications, and discussed various suggestions contained therein, proceeded to explain the principles which had guided the Practice Standing Committee in their work of revision, and dealt at considerable length with the principal objections raised against the revised document. A general discussion ensued, during which Mr. G. T. Hine [*F.*] asked leave to withdraw his amendment [p. 470], and, the Chairman having intimated that the verbal modifications suggested would be taken into consideration by the Council, it was

> RESOLVED, with two dissentients, That the Royal Institute of British Architects do hereby approve the Paper and, subject to such verbal amendments as in the discretion of the Council may appear to them desirable, do authorise its issue as "A Form of "Agreement and Schedule of Conditions for Build-"ing Contracts sanctioned by the Royal Institute of "British Architects."

It was further

> RESOLVED, That the Royal Institute of British Architects do withdraw its assent to the further issue of the "Heads of Conditions of Builders' Contracts" at present issued with the sanction of the Royal Institute.

It was further

> RESOLVED, That the Council do send a notification to the above effect to the Council of the Institute of Builders, and afterwards in due course to the professional Press, announcing the issue of the New Form in substitution for the said "Heads of Con-"ditions."

A vote of thanks to the Practice Standing Committee, moved by the Chairman and seconded by Mr. Octavius Hansard [*F.*], was carried by acclamation, and, the proceedings having terminated, the Meeting separated at 10.15 p.m.

MINUTES. XIV.

At the Fourteenth General Meeting (Ordinary) of the Session, held on Monday, 20th May 1895, at 8 p.m., Mr. F. C. Penrose, F.R.S., *President*, in the Chair, with 19 Fellows (including 9 members of the Council), 24 Associates (including 1 member of the Council), 1 Hon. Associate, and 8 visitors, the Minutes of the Meeting held 6th May 1895 [p. 477] were taken as read, and those of the Adjourned Special General Meeting held 29th April were read, and signed respectively as correct.

The Secretary announced the decease of James Piers St. Aubyn, *Fellow*.

The following members, attending for the first time since their election, were formally admitted and signed the respective Registers—namely, Paul Waterhouse [*F.*], Harry Tom Boden Spencer [*A.*], and Henry Ernest Kirby [*A.*].

The following candidates for membership, whose nomination had been previously approved by the Council, were recommended for admission:—As FELLOWS, Charles Busteed Fowler (Cardiff); Francis Thomas Dollman [*A.*]. As ASSOCIATES, Herbert Phillips Fletcher; George Hubbard; John James Joass (*Pugin Student* 1892, *Owen Jones Student* 1894); Geoffrey Prater Armstrong; Walter Robert Jaggard. As HON. CORR. MEMBERS, Alexander Wielemans, edl. v. Monteforte (Vienna); Ferdinand Fellner (Vienna).

A Paper by Professor Baldwin Brown [*H.A.*], M.A., entitled THE CHARACTERISTICS OF PRE-CONQUEST ARCHITECTURE, was read by the Author, and, having been discussed, a vote of thanks was passed to him by acclamation, and the Meeting separated at 10 p.m.

The Royal Institute of Ireland.

The following are the officers and Council for the year 1895, elected at the Annual Meeting held in January:—President, Mr. Thomas Drew [*F.*], R.H.A.; Hon. Secretary, Mr. Albert E. Murray [*F.*], A.R.H.A.; Council, Messrs. J. J. O'Callaghan, C. J. McCarthy, J. R. Carroll [*F.*], Sir T. N. Deane, R.H.A., J. H. Pentland [*F.*], C. Geoghegan, R. C. Millar [*F.*], W. M. Mitchell, R.H.A., and W. K. Parry; Auditors, Messrs. R. O'B. Smyth and C. A. Owen.

The Manchester Society.

The Annual General Meeting was held on the 23rd April, when the officers and Council for the year 1895–96 were elected as follows:—President, Mr. John Holden [*F.*]; Vice-Presidents, Messrs. John Ely [*F.*] and R. Knill-Freeman [*F.*]; Hon. Secretary, Mr. Paul Ogden [*F.*]; Assistant Hon. Secretary, Mr. Edward Hewitt [*F.*]; Members of Council, Messrs. R. I. Bennett [*F.*], A. H. Davies-Colley [*A.*], T. Chadwick [*A.*], R. Knill-Freeman [*F.*], F. Mee, J. D. Mould [*A.*], W. A. Royle [*F.*], E. Salomons [*F.*], J. H. Woodhouse [*F.*], T. Worthington [*F.*], J. S. Hodgson, H. E. Stelfox [*A.*], and P. Scott Worthington [*A.*]; Auditors, J. W. Beaumont [*F.*] and C. H. Heathcote [*F.*]; Education in Architecture Committee, Messrs. A. H. Davies-Colley [*A.*], John Ely [*F.*], F. Mee, J. D. Mould [*A.*], G. H. Willoughby [*F.*], J. H. Woodhouse [*F.*], P. E. Barker [*A.*], G. Brown, P. Hesketh [*A.*], J. S. Hodgson, H. E. Stelfox [*A.*], and P. S. Worthington [*A.*].

LEGAL.

Builders' Contracts—Architects' Certificates [p. 505].

LLOYD *v.* MILWARD.

In January 1893 Messrs. Lloyd Brothers contracted with the defendant, Mr. Milward, to build shops and premises in College Street, Swansea, at the price of about £4,000. The Form of Contract adopted was that issued by the National Association of Master-Builders, Liverpool. The architects employed were Messrs. J. P. Jones, Rowlands, and Margrave, of Swansea and Cardiff. The builders claimed to have completed the work in or about

April 1894. The defendant, however, would not admit that the works were completed, and from time to time sent lists of additional work, which the plaintiffs at once carried out. The defendant still contended that the works were not completed, and also objected to the amounts of various items in the plaintiffs' account of extras. Ultimately he gave the architects full details of his objections, and the architects thereupon measured up the work, and on the 14th June granted a final certificate under Clause 20 of the Contract. The defendant then repudiated the certificate, and claimed that he was entitled to go to arbitration. Under these circumstances the plaintiffs commenced an action for the amount due upon the final certificate. The case was tried before Mr. Justice Lawrance at the Glamorganshire Autumn Assizes. By an arrangement between counsel the facts were not gone into at all, but it was assumed, for the purpose of argument only, that disputes had arisen between the parties at the date at which the final certificate was granted. Mr. Justice Lawrance gave judgment for the plaintiffs, holding that Clause 20 * was not subject to the operation of Clause 22,* and that the certificate, having been given in good faith, was final and conclusive.

The defendant appealed to the Court of Appeal, who, after reserving their decision for six weeks, gave judgment in April 1895 as follows:—

The Master of the Rolls.—In this case, the action is brought by builders against the building owner on a contract made between them. The action is brought for the price of work done under that contract, and the plaintiffs rely upon this; they state that they had done the work, and that they had obtained, under Section 20 of the contract between them and the defendant, a certificate from the architect, and that that certificate was conclusive evidence of the works having been duly completed, and that the contractor was entitled to receive payment of the final balance. Well, that is Section 20 of the contract. If nothing had happened to prevent the application of that section, it is obvious that the plaintiffs are right, and must be entitled to recover, and the Judge has so held. Then the defendant says he relies upon Section 22, and he says that before the architect had given this certificate an open dispute, known to both parties and known to the architect, had arisen between the two parties, the contractors and the building owners, as to this work; and that when that dispute openly had arisen, and it cannot be denied that it was existing and was known to them both and was known to the architect, then by Section 22 of the contract the architect's power to give the certificate relied upon by the plaintiffs was entirely gone, and that the dispute must be settled under Section 22 by an arbitrator.

It seemed to me difficult for some time to see how to reconcile Section 20 and Section 22, but I have come to the conclusion that the contention of the defendant is right that Section 20 stands; but that Section 22 is a proviso upon it, and that if the conditions mentioned in Section 22 arise before the architect exercises his power of granting a certificate, then his power to grant a certificate is gone. I think those conditions did arise in this case, because the dispute was an open dispute as to the works having been duly completed, and that dispute was known to both sides, and therefore brought the case within Section 22, and that was before the architect had given his certificate. When he gave it, therefore, he had no power to give it, and it was of no effect; and I am of opinion that therefore the defendant was right, that the action cannot be maintained, but that the case must go to arbitration. We think, therefore, that we must allow the appeal, and that the judgment of the learned Judge was wrong.

Lord Justice Lopes.—This is a rather peculiar case. The building owner here seeks to be relieved from the effect of a final certificate of his architect. For some time I thought the certificate was final and conclusive, and could not be impugned. The case, however, depends upon the true construction of two clauses in the building contract, namely, Clauses 20 and 22.

Now it is most important to bear in mind in this case that it was assumed—in point of fact, it was admitted, I may say—that there were disputes with regard to the due completion of the work in existence before the giving of the final certificate of the architect, and that the architect knew of such disputes, and with such knowledge gave his final certificate. That is assumed, and, as I say, admitted. Then it depends upon the true construction of these two clauses. Clause 20 is: "A certificate of the architect," and then follow these material words, "or an award of the "referee, hereinafter referred to, as the case may be," having the effect, as it appears to me, at once of showing that the certificate of the architect may be overridden or altered, or there may be a substitution of an award of the referee for the architect's certificate: "A certificate of the "architect, or an award of the referee hereinafter referred "to, as the case may be, showing the final balance due or "payable to the contractor, is to be conclusive evidence of "the works having been duly completed, and that the "contractor is entitled to receive payment of the final "balance, but without prejudice to the liability of the con-"tractor under the provisions of Clause No. 12."

I now come to Section 22. In my judgment that section overrides Section 20 to the extent that in certain cases, and in this particular case to which I have alluded, namely, where disputes had arisen before the giving of this final certificate, it overrides what otherwise would be the effect of Section 22. I will not read Section 22 at length, but it provides that "in case any question, dispute, or difference "shall arise"—between whom?—"between the proprietor "or the architect on his behalf"—that is, the building owner or his architect—"and the contractor as to what additions," and so on—I will not read that—"as to the works having "been duly completed." Then what is to happen? Then this is to happen: The matter is to be referred to the arbitration and final decision of a gentleman named, and the award of such gentleman, called here the referee, is to be equivalent to a certificate of the architect, and the contractor is to be paid accordingly. Therefore, it appears to me, in the circumstances which have arisen in this case, the award of the referee is to take the place of the certificate of the architect, and in point of fact is to override it. I think the meaning of the two sections taken together is this, that the certificate of the architect is to be final and conclusive if there is no dispute; but if there is a dispute, then the award of the referee is to take the place of the certificate, and is to be substituted for it. Under these circumstances I think that in this case the learned Judge was wrong, and that this appeal ought to be allowed.

Lord Justice Rigby.—I am of the same opinion. On the construction of the agreement in this case, and particularly Clauses 20 and 22, it was in my judgment the intention of the parties, shown by the language of the agreement, that, with the exception of the cases particularly mentioned in Clause 22, every dispute that might arise should be referred, not to the architect, but to the special referee mentioned in Clause 22. The excepted matters are described as matters left during the progress of the works to the sole decision or requisition of the architect under Clauses 2, 10, and 11. It has nothing to do with a dispute arising on the final completion of the works. It is shown in the case that a dispute did arise, and was made known to the architect and also to the opposite party. In my judgment the jurisdiction of the architect to make a final certificate was thereby ousted, and the dispute fell to be determined by the special referee. The final certificate actually given was under the clauses *ultra vires* and of no effect, and the judgment for £281 6s. 11*d*., which by that

* These Clauses 20 and 22 of the Conditions of Contract referred to are identical with Clauses 18 and 20 of the Institute Paper (now superseded) of "Heads of Conditions" [see p. 505].

final certificate would appear to be due, entered for the plaintiffs must be set aside.

The Building Line.

LAVY AND UPJOHN *v.* THE LONDON COUNTY COUNCIL.

This was a case stated by a Metropolitan police magistrate, which came before a Divisional Court on the 1st May, and is reported in *The Times* of the 2nd May 1895 as follows:—

Upon July 24, 1894, the appellants were charged with having at 391 City Road, in the parish of Islington, in the County of London, unlawfully erected a certain structure beyond the general line of buildings in City Road without the consent in writing of the London County Council, contrary to section 75 of 25 and 26 Vict., c. 102; 45 Vict., c. 14, section 10; and 51 and 52 Vict., c. 41. By the Metropolis Management Amendment Act 1862 (25 and 26 Vict., c. 102), section 75, it is enacted that "no building, "structure, or erection shall, without the consent in "writing of the Metropolitan Board of Works, be erected "beyond the general line of buildings in any street, place, "or row of houses in which the same is situate, . . . such "general line of buildings to be decided by the superin-"tending architect." By section 28 of the London County Council (General Powers) Act 1890 (53 and 54 Vict., c. ccxliii.), "any person deeming himself aggrieved "by the certificate of the superintending architect may, "within 14 days after notice of such certificate has been "given or served, appeal to a tribunal to be constituted as "in the section mentioned."

The facts were as follows:—The appellants were the owners of the house 391 City Road, which was 38 ft. from the footway. It had a forecourt, which for many years was bounded by a brick wall 2 ft. or 3 ft. high, 9 in. thick, with an iron railing 5 ft. 6 in. in height. That being the state of things, the appellants from time to time made applications for leave to build upon the forecourt. The applications were refused. Prior to 1894 the appellants erected on the dwarf wall a hoarding for advertising purposes. It was placed against the railings so as to get their support, and it had struts for additional support. The County Council gave notice to remove it, and on the 5th of May 1894 the hoarding was removed and replaced by what was now complained of—viz. a wall 11 ft. high, 14 in. thick, with its face put back 4½ in. from the line of the old dwarf wall, so that there might be a ledge to support it. The summons was taken out on 11th July, and on 13th July the architect gave his decision under section 75 of 25 and 26 Vict., c. 102, as to what the building line was. That decision was appealed from. On 24th July the appellants appeared to the summons, and the respondents asked for an adjournment. The adjournment was granted upon the terms that the rights of all parties as they were on 24th July should be preserved—*i.e.* that the matter was to be in the same position as if the magistrate had begun to hear the appeal on July 24th. Adjournments took place from time to time, and on 19th October the architect's decision was confirmed by the Tribunal of Appeal. By that confirmation the building line was finally decided to be the line of the house 391 City Road. The magistrate found that the wall was erected as an advertising station, but that it was intended to serve also as a boundary wall for the forecourt, and on 7th December made an order upon the appellants to demolish the erection, and found, so far as it was a question of fact, that it was a structure in front of the general line of buildings. No consent to the erection being made was ever given by the respondents, the London County Council.

Mr. Dickens, Q.C., and Mr. R. Cunningham Glen appeared for the appellants, and submitted that, as on 24th July the appeal from the architect's decision was still pending, there was no decision upon which the magistrate could make the order to demolish; further, that the erection was not a "structure" within section 75 of 25 and 26 Vict., c. 102. They cited *Barlow* v. *Kensington Vestry* (11 A.C., 257), *Spackman* v. *Plumstead Board of Works* (10 A.C., 229), *Wendon* v. *London County Council* (1894, 1 Q.B., 227; 1894, 1 Q.B., 812), and *Lord Auckland* v. *Westminster Board of Works* (L.R. 7, Ch., 596).

Mr. Channell, Q.C., and Mr. F. F. Daldy, for the respondents, cited *The London County Council* v. *Cross* (66 L.T., 731) and *Ellis* v. *Plumstead Board of Works* (41 W.R., 496).

The Court dismissed the appeal.

Mr. Justice Day in the course of his judgment said:—I am of opinion that the magistrate was right. The hearing was adjourned from time to time till October, and by that time the decision of the architect was affirmed. There was always a decision and a certificate of the superintending architect. It happened that the magistrate did not give his decision till the decision of the architect became a final decision. But that is immaterial. There was the architect's decision. It is perfectly clear that this structure is now under the jurisdiction of the London County Council. But it is said this is not a "structure" at all. It was either a building, structure, or erection. I think that all the points of attack upon the magistrate's decision fail.

Mr. Justice Wright concurred.

The London Building Act 1894, section 212.

MATHEWS *v.* SALT.

At Clerkenwell Police Court, on the 3rd May, before Mr. Horace Smith, Samuel Salt, builder, was summoned by the London County Council, at the instance of Mr. J. Douglass Mathews, District Surveyor of Clerkenwell, for having contravened section 74, subsection 2, of the London Building Act 1894 (57 & 58 Vict., c. cexiii.), in the erection of the White Horse beerhouse, Collier Street, Pentonville.

The offence alleged was that the portion of the building used for the purposes of trade was not separated from the part of the building used for dwelling purposes by walls, floors, &c., of fire-resisting materials.

Mr. Berry prosecuted; and Mr. J. P. Grain and Mr. Sydney Knox defended.

Mr. Grain argued that the building was practically commenced before the Act came into operation; and further, that, being a public-house, it did not come under the section which dealt with premises used for the purposes of trade and manufacture, a beerhouse being classed with hotels and places for refreshment. A contract for building was actually entered into in April 1894, and the Act was not passed until August 1894, coming into force on January 1, 1895. The building was being erected for Messrs. Whitbread & Co. The actual signing of the document of contract was in September 1894, after the passing of the Act. He contended that the section was intended to deal with large store buildings, and that a beerhouse was to all intents and purposes a private building.

Mr. Berry argued that the contract referred to by Mr. Grain was not a contract entered into before the passing of the London Building Act 1894, within the meaning of section 212 of that Act, and that a beerhouse was a building used partly for the purposes of trade and partly for domestic purposes.

Mr. Horace Smith held that the contract submitted was not a contract contemplated by the Act. It was not a contract with the actual builder. He also held that a beerhouse was used for the purposes of trade. He made an order for the work to be done in accordance with the County Council's request, which was that the ceiling between the ground and first floors should be of fire-resisting materials.

It has been said that this decision, so far as it relates to section 212, is in conflict with that of Sir John Bridge in the *Bedford Court Mansions Case*, reported at page 264. It will be seen, however, that the circumstances of that case differed in a material point from those of the present.